United States Court of Appeals
for the
District of Columbia Circuit

TRANSCRIPT OF RECORD

810

JOINT APPENDIX

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

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For the
District of Columbia Circuit

FILED OCT 15 1957

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CLERK

No. 13,969

ELMER C. KIEKHAEFER,

Appellant,

v.

ROBERT C. WATSON,
Commissioner of Patents,

Appellee.

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

Robert L. Thiel, Printer
Washington, D. C.
EX 3-0625

UNITED STATES COURT OF APPEALS
For The District Of Columbia Circuit

No. 13,969

ELMER C. KIEKHAEFER,

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JOINT APPENDIX

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507,594	Rockwell
1,936,775	Stedman
2,470,439	Kohler
1,365,985	Gullborg
14,025	Ravenshaw

66 IN THE DISTRICT COURT OF THE UNITED STATES
FOR THE DISTRICT OF COLUMBIA

ELMER C. KIEKHAEFER,)
141 South Washington Avenue)
Cedarburg, Wisconsin)
)
Plaintiff) CIVIL ACTION NO. 2352-55
)
vs.)
)
ROBERT C. WATSON)
Commissioner of Patents,)
)
Defendant)

[Filed May 27, 1955]

CIVIL ACTION TO OBTAIN PATENT BILL OF COMPLAINT

The plaintiff for his bill of complaint alleges that:

1. This action is brought under the provisions of Title 35, U. S. Code, Section 145.

2. The plaintiff, ELMER C. KIEKHAEFER, is a citizen of the United States, residing at 141 South Washington Avenue, Cedarburg, in the County of Ozaukee and State of Wisconsin.

3. The defendant, ROBERT C. WATSON, is the United States Commissioner of Patents and is officially a resident of the District of Columbia within the jurisdiction of this Court.

4. Plaintiff is the original and first inventor of certain improvements in an Elastic Handgrip as claimed in his application for U. S. Letters Patent executed by him on or about the 28th day of August 1947.

5. Said application was filed in the United States Patent Office on September 5, 1947 and assigned Serial No. 772,343, and on December 19, 1950, the claims of said application were finally rejected.

67 6. On May 16, 1951, applicant filed his application for improvements in Outboard Motor Clamp which application was assigned Serial No. 226, 709 and duly claimed the benefit of the prior disclosure and filing date of his application, Serial No. 772, 343.

7. On April 7, 1953, the claims of said application, Serial No. 226, 709, reading as follows were finally rejected.

> 1. A manually operable screw clamp for outboard motors and the like comprising a threaded shank having a cross member extending transversely there through near the outer end thereof to provide a hand grip for turning of the shank and wherein severe engine vibration tends to loosen the clamp unless highly tightened and tends to cause loosening and rattling of the cross member in the shank, a clamp member having said shank threaded there-through, a clamp head secured upon the end of said shank opposite said cross member, and an elastic highly resilient covering molded upon and fully embedding the cross member to retain the same in relation to the shank, said covering being tightly bonded to the body of said shank and to said cross member to prevent rattling of the latter in the shank under high vibration forces and yielding under high manual tightening forces applied thereto to permit a loose cross member to transmit the rotary tightening forces to the shank without rupture of the cover, and said covering presenting a yielding hand grip of substantial size making possible the application of substantially higher manual tightening forces without injury to the hand of the operator and being susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.

2. In an outboard motor unit having an internal-combustion engine producing substantial vibration, the combination of a clamp bracket adapted to support said unit upon the transom of a boat and having an inverted U-shaped clamp body adapted to slip over the upper edge of the transom, at least one clamp screw carried by the forward leg of said U-shaped clamp body and comprising a shank threaded upon said leg in a direction to effect confinement of the transom between the inner end of the shank and the rear leg of said clamp body, a metal rod extending transversely through the shank near its outer end to provide for manual application of turning forces to the shank and a highly resilient covering embedding 68 said transverse rod and the adjacent portions of said shank to provide an enlarged handgrip therefor, said covering yielding to compensate for looseness of said transverse rod in the shank and serving to resist vibratory rattle of the rod and being susceptible to damage by the use of other means for tightening the clamps whereby overtightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.

8. On March 29, 1955, the Board of Appeals considering applicant's appeal duly filed, affirmed said final rejection and further rejected the claims on additional grounds.

9. The decision of the Board of Appeals adjudging the Plaintiff not entitled to U. S. Letters Patent on his application is to Plaintiff's damage and is erroneous and contrary to law.

10. No appeal has been taken by Plaintiff to the United States Court of Customs and Patent Appeals from said decision of the Board of Appeals.

11. Plaintiff has complied with all conditions and requirements of the law of the United States and rules of the United States Patent Office; has at no time abandoned his invention or allowed the pendency of his application for Letters Patent therefor to lapse; and files this complaint as required by law and the rules of this Court.

12. Plaintiff stands ready to produce in court a certified copy of the aforesaid applications for Letters Patent, Serial No. 772,343, now abandoned, and Serial No. 226,709, and all proceedings including said appeal, and all papers in the files thereof.

69 WHEREFORE, Plaintiff respectfully prays that the court adjudge Plaintiff entitled to receive a patent for his invention as specified in any of his claims involved in the decision of the Board of Appeals as the facts in the case may appear, and that such adjudication authorize the Commissioner to issue such patent in compliance with the requirements of law.

ANDRUS & SCEALES
Attorneys for ELMER C. KIEKHAEFER,
Plaintiff

By /s/ Elwin A. Andrus

735 North Water Street
Milwaukee 2, Wisconsin

May 26, 1955

OF COUNSEL:

/s/ Solon B. Kemon
1331 G Street, N. W.
Washington, D. C.

---

70 [Filed June 30, 1955]

ANSWER TO THE COMPLAINT

To the Honorable the Judges of the United States District Court for the District of Columbia.

1, 2, 3. The defendant admits the allegations of paragraphs 1, 2 and 3 of the complaint.

4. He denies the allegations of paragraph 4.

5, 6. He admits the allegations of paragraphs 5 and 6.

7. He states that in line 9 of claim 2 as it appears in paragraph 7, the word "upon" should be -- through -- . He admits the remaining allegations of paragraph 7.

8. He admits the allegations of paragraph 8.

71 9. He denies the allegations of paragraph 9.

10. He admits the allegations of paragraph 10.

11. He is not informed as to whether the plaintiff has abandoned his invention. He admits the remaining allegations of paragraph 11.

12. He admits the allegations of paragraph 12.

FURTHER ANSWERING, the defendant states that the plaintiff is not entitled to a patent containing either of the claims set forth in the complaint for the reasons given and in view of the references cited in the Examiner's Reply to Brief and the decision of the Board of Appeals in the plaintiff's application No. 226,709. Profert of copies of the said reply, decision and references is hereby made.

Respectfully submitted,

/s/ E. L. Reynolds
Solicitor, U. S. Patent Office,
Attorney for Defendant.

June 28, 1955.

[Certificate Of Mailing]

1 TRANSCRIPT OF PROCEEDINGS

[Filed June 5, 1957]

Washington, D. C.,
Thursday, March 14, 1957.

The above-entitled case came on for trial at 10:45 o'clock a. m., on Thursday, March 14, 1957, in the United States District Court for the District of Columbia, in the Court House, at Washington, D. C.

BEFORE:

HONORABLE ALEXANDER HOLTZOFF, Judge of the United States District Court for the District of Columbia.

Appearances:

SOLON B. KEMON, Esquire, and ELWIN A. ANDRUS, Esquire, on behalf of the plaintiff; and

GEORGE C. ROEMING, Esquire, on behalf of the defendant.

- - - - -

2 PROCEEDINGS

THE DEPUTY CLERK: Kiekhaefer vs. Watson.

MR. KEMON: May it please Your Honor --

THE COURT: Just a moment, before you proceed.

Mr. Roeming, do you have the usual folder?

MR. ROEMING: Yes, sir.

THE COURT: Now, you may proceed.

MR. KEMON: If it please the Court, I would like you to hear Mr. Elwin Andrus of Milwaukee, Wisconsin, in this case. Mr. Andrus is a member of the Bar of the highest Court of the State of Wisconsin, and also a member of the Bar of the Supreme Court of the United States. I ask that he be heard.

THE COURT: Well, that should not be your application.

Are you moving for his admission?

MR. KEMON: No, Your Honor; just for purposes of this trial.

THE COURT: Well, are you moving for his admission? I cannot hear him unless I admit him first.

MR. KEMON: I move that he be admitted for this trial, yes, Your Honor.

THE COURT: Very well.

Mr. Andrus, you may be admitted pro hac vice.

MR. ANDRUS: Thank you, Your Honor.

3 If it please Your Honor, ever since I attended a demonstration of pretrial procedure in San Francisco in 1952, that I believe you presided at, I have always wanted to come to this Court and observe Your Honor in action.

THE COURT: Thank you.

MR. ANDRUS: I also have taken a considerable interest in Your Honor's activities in the civil rules procedures, being an officer of the Seventh Circuit Bar Association, in which we are considering those rules at all times, and right now we have some matters under consideration on them.

Now, this suit which we have here, Your Honor, is one brought under Title 35, Section 145 of the United States Code against the Commissioner of Patents.

It involves an application for patent by Mr. E. C. Kiekhaefer, who I believe was a witness before this Court, a couple of weeks ago in another suit against the Commissioner.

THE COURT: Yes, I recall that.

MR. ANDRUS: The improvement for which a patent is being sought relates to an outboard motor clamp, which is that part of an outboard motor that clamps it to the transom.

THE COURT: Will you speak a little louder, Mr. Andrus?

MR. ANDRUS: All right, Your Honor.

It is that part of the outboard motor that clamps the motor to the transom or rear end of the boat, an outboard motor being a
4 portable motor for driving a boat in the water.

Now, the improvement is not directly anticipated by anything in the art cited but because of the suggestions which the Patent Office finds in art in other fields the issue comes down to whether the improvement is patentable or whether it would have been obvious to the man of ordinary skill in the art.

Now, we have come to this Court because there has been no opportunity in the Patent Office to present certain facts which bear upon this issue of patentable invention.

We will show this Court that the clamp construction for outboard motors remained essentially the same from the days of the first outboard motor by Waterman in 1905 up to the time of the present invention in 1947; and that this was so in spite of the fact that the construction caused many complaints from users.

Certainly some manufacturer would have overcome these complaints in that 40-year period if the solution had been within the skill of the ordinary person in the art. The present invention has completely eliminated those complaints.

We will also show that even Mr. Kiekhaefer, who will be a witness in this case, did not arrive at the invention or a satisfactory solution for those complaints immediately. He struggled with the problems and the complaints for several years in his manufacture and tried several different changes in construction before he arrived at this particular invention.

Furthermore, when Mr. Kiekhaefer incorporated the present invention in his own outboard motors that were sold on the market, it became a definite factor in increased public acceptance of his product, and we will show that that coupled with the ceasing of all complaints on the clamps is very definitely evidence of invention in this case.

THE COURT: Now, why could not all this be shown? You say you had no opportunity to present these different things. Why was there no opportunity?

MR. ANDRUS: I assume you could do it by affidavits and certain ways, but they are entirely inadequate as compared with testimony and exhibits. The Patent Office has no procedure whereby you can have a hearing and present testimony.

THE COURT: I understand that, but information could have been presented in the form of affidavits.

MR. ANDRUS: Yes, that is right. I consider those fairly inadequate for a proper situation such as this.

Now, finally we will show that competitors who were finding it difficult to compete, copied the improvement to the minutest detail, rather than to try to develop something else which would answer the problems involved. That is a tribute which is one of the highest indications of patent-ability, to be considered so in many cases.

6 Now, in bringing these facts to this Court, we will point out the many outstanding advantages of the present improvement, advantages which the Patent Office has ignored for want of proof, and which I shall not take the time to explain at this moment because they can be explained more readily with the exhibits, models, and the witness.

However, I can assure this Court that the advantages of this construction are extremely interesting. The simplicity of the step forward is rather illustration of invention in this instance, in view of the 40 years of waiting, rather than the simplicity striking the invention down. Now, there is considerable simplicity here at first blush, but there will be points in regard to the advantages that show unobvious results in the performance of this structure as against anything known in the art.

There are only two claims involved in this case. They are the two original claims of the application with a few amendments. They recite the combination of the various elements of the clamp structurally and bring out the relationship of the parts and details that emphasize some of the essential features of the invention.

The Board of Appeals refused Claim 1 because in addition to specifying the structural elements of the device, it recited certain characteristic relationships between those elements which we deem to be important in the structure.

7 Now, I know of no case that holds that an inventor should be refused a claim to which he is meritoriously entitled and which fully sets forth the structure merely because it also sets forth important characteristic relationship between the structural elements recited in the claims.

The Board of Appeals cites no such case. I believe counsel will have a case, which I feel that I can distinguish, Your Honor, in this regard.

THE COURT: Well, would it not have been a simple matter, if that was the only controversy between the applicant and the Patent Office, to have acquiesced in the idea of the Patent Office and stricken out those clauses from the claim?

MR. ANDRUS: As I understand it, Your Honor, there is no procedure for amending a claim after the Board of Appeals decision.

THE COURT: I know, but would it not have been simpler to make the amendment, after you received the rejection from the Primary Examiner, instead of continuing the controversy over a matter of that kind?

MR. ANDRUS: To my way of thinking, this particular controversy is truly negligible in this case.

THE COURT: Yes, I should think so.

MR. ANDRUS: And I did not plan to say to much about it
until counsel showed me this case he was going to present, and that
is why I make a statement about it. To me, it is no reason for strik-
8 ing down a meritorious invention, regardless, as long as all
the elements are there and it is clearly stated.

The Board of Appeals didn't apply that rejection or didn't affirm the Examiner's rejection of Claim 2 in that particular. The next point the Board of Appeals considered was a denial of both Claims 1 and 2 upon the ground that they were for an exhausted combination.

THE COURT: On what ground, did you say?

MR. ANDRUS: Technically speaking, it is an exhausted combination. That is their ground of denial of these two claims.

THE COURT: What is meant by that? What is an exhausted combination?

MR. ANDRUS: Well, they say they find all of the elements, basically speaking, all the elements in one structure in the art, and that so finding all the elements, the changing of the details of various elements does not entitle you to a patent, except for the particular change of an element. For instance, if you change one element of five, you cannot claim all five elements with that particular change in the one, unless it produces, they say, some overall new result.

THE COURT: Well, of course, that is fundamental.

MR. ANDRUS: That is fundamental, Your Honor, and
9 I have no quarrel with the rule. My quarrel is with the appli-
cation.

THE COURT: Minute claims cannot be infringed except by a Chinese copy; isn't that about it?

MR. ANDRUS: Well, sometimes we think in terms of that, yes, Your Honor. There is no great harm from the standpoint of others, as long as they do not Chinese copy it.

Now, particularly in this case, we will show several outstanding advantages for this claimed construction that were not obvious to Mr. Kiekhaefer and his staff, so that there are unobvious advantages in this case. Further, in regard to this type rejection of an exhausted combination, I have always been a firm believer than an invention lies where the problems it solves lies. It must lie in that field, and it must relate to some objective of securing some problems or improving something, and if you are tied down to some other field, you are doing an injustice to an inventor to compel him to go all-out on something else.

THE COURT: Was this rejected in the light of the prior art?

MR. ANDRUS: Yes, it had to be, of course; that is right.

Now, the final consideration of the Board was that the claims lacked invention, not that they were anticipated by any one structure, but by combining a number of structures, it would be easy to accomplish the invention.

I have already mentioned some features on that, and to me, that seems to be the real issue there on this appeal.

We have sometimes a little difficulty in understanding just what the Counsel for the Patent Office will raise as his major defense.

THE COURT: Well, we will hear his opening statement in due time.

MR. ANDRUS: Very well, Your Honor.

THE COURT: But you have not told me yet what the invention is.

MR. ANDRUS: Well, you mean, read the claims, or what?

THE COURT: Oh, no, no. Tell me what the inventive step is. What is the inventive step that the plaintiff says he took?

In other words, it is a rather deplorable practice of patent attorneys in drawing claims that they never disclose what the invention is. That is why I always felt that the British patent system is better than ours, because their claims will end up by saying, characterized by so-and-so. In other words, that is the invention.

MR. ANDRUS: That is right.

THE COURT: Although our patent law requires the pointing out of the invention, the average specifications in the average claims
11 do not tell what the invention is, what the forward step is that the inventor says he took.

Now, that is what I always want to know in these cases, or to use the term sometimes used, what is the carrying element in this combination. In other words, what is the forward step that this inventor says he took.

MR. ANDRUS: The reason I skipped that, Your Honor, in some sense is that I would stress it in connection with the story that Mr. Kiekhaefer has to tell.

THE COURT: No; I want that in the opening statement.

MR. ANDRUS: All right, Your Honor.

Well, in essence it is a very simple approach, and it is so simple that that is where our argument with the Board of Appeals has been.

These claims have to hold a motor on the rear end of a boat and not drop the motor into the water. A motor ranges in power, depending on the different size, from 5 horsepower or thereabouts, up to 60 today, and these very powerful motors put a tremendous stress on the rear end of the boat, and these clamps have to transmit that push and the vibration of the engine, which is extremely high in these powerful motors, and the clamp is the all essential element. If it breaks the motor is lost.

Now, I can only explain just a little in connection with what
12 the trouble with the previous clamp was.

THE COURT: I understand, but how does the inventor change the prior practice. That is the test of whether he invented anything or not.

MR. ANDRUS: Well, there are additional factors that enter into it.

THE COURT: Yes, I know, but I want to know what the invention is. I always want to put my finger on what the applicant says he invented.

MR. ANDRUS: The prior clamps had a screw clamp that you screw up with a shank on it that was threaded so it went through a portion of the clamp and secured the transom to the back of the clamp on the boat.

Now, this screw threaded shank had to have a handle and a means of taking care of the tightening of the clamp quickly, and sometimes with both hands, because there are two such screw threaded clamps.

The old motors had on the end of the shank for a handle a small metal rod that went through a hole transversely through the handle, and then they had to have some means of holding that small metal rod in the shank. There were various ways of doing that. Most of them were loose and were held by some means at the ends of the rod that prevented it from going all the way through the hole and dropping out.

There was a reason in the old days for making those loose.
13 They could get a greater leverage by having just one side of the
lever arm extending from the shank in only one direction, they thought.

Now, in that connection, there were many difficulties that arose. Hands became pinched and many things were incidents of injury, which will be brought out here, and even the cowl of the motor became --

THE COURT: No; I want to know what he did that he says is the invention.

MR. ANDRUS: What he did or the changes he actually made in the structure was to move this cross member to an equal position in essence, he moved it up and then coated it, covered it with a sizable grip of rubber, or any synthetic rubber, because it wouldn't make any difference if it was pure rubber, and it could be a plastic or some synthetic type of rubber, but he covered that and it held that bar, the cross bar, against rattling, against loosing out, against corrosion, and against many factors, which have almost revolutionized that clamp construction in this field, and he has avoided all complaints from the people.

THE COURT: Does the invention then consist of covering this cross bar with a coating of rubber? Is that the invention?

MR. ANDRUS: That is in essence the change, Your Honor. I do not express it as necessarily the invention. You are thinking in
14 terms of structure but there are many elements of --

THE COURT: I have to think in terms of structure.

MR. ANDRUS: Yes, that is right. In terms of structure, that is the change.

THE COURT: Mr. Roeming.

MR. ROEMING: If Your Honor please, in addition to the copies of the claims which I have previously presented, I have two drafts here, one of claims, noting the structural elements in the claims in red, and indicating in brackets the non-structural limitations.

I also have an additional paper showing what the claims would read like if they were limited only to the structural limitations.

THE COURT: Well, now, if they were limited just to the structural limitations, would the rejection still stand?

MR. ROEMING: Yes, Your Honor.

I agree with counsel for the plaintiff that the main issue before the Court is whether there is an invention, and I shall stress that heavily.

There is also the additional issue of old combination presented by the Board, which counsel for the plaintiff in the terms of the patent law also correctly labeled exhausted combination.

15 THE COURT: What is the point of that? Suppose you tell me about that.

MR. ROEMING: Yes, sir. In the decision of the Supreme Court in Lincoln Engineering vs. Stewart-Warner, at 303 U. S. 545, and particularly in the pages which I shall present to the Court here, with the significant portions marked, in that case where the patentee had claimed a combination of elements, and it was conceded in that case that there was an invention, and yet the Supreme Court held the patent claims invalid in effect for over claiming, and the Supreme Court held that in that case the real improvement was in an element of a combination of elements previously known and therefore the claims should have been limited to the improved element.

THE COURT: Well, actually, though, isn't it the practice in drawing claims, and I personally deplore the practice, but isn't it the practice to enumerate all the elements?

MR. ROEMING: Yes, sir.

THE COURT: And perhaps drown out the invention?

MR. ROEMING: That is the most common practice.

THE COURT: And it is generally acquiesced in by the Patent Office.

MR. ROEMING: That is true, sir.

THE COURT: If that is so, is it reasonable to pick out one application and reject on that ground when hundreds go through that are
16 stated the same way?

MR. ROEMING: Well, that leads to the further question, whether it is unreasonable to reject certain patent applications as unpatentable and allow others, which courts later declare invalid.

THE COURT: No, no, that is not the point. There is no analogy there.

The question here is that there is a practice that you disapprove, and I think properly so, and you reject one application because it involves this undesirable practice, and yet you pass 99 others that present the same defect.

MR. ROEMING: I am afraid I made an admission there that was broader than I should have.

Granted that the office consistently allows combination claims in the form that you have before you, it is not always true that such claims would be subject to a rejection of old combination under the Lincoln vs. Stewart-Warner case.

If Your Honor will permit, I would like to illustrate in terms of the art before us exactly how this doctrine of old combination works.

THE COURT: Well, is not that a minor issue in this?

MR. ROEMING: Yes, I agree that is. The main issue is whether there is invention.

THE COURT: Very well.

MR. ROEMING: Along that line, I would like to stress,
17 therefore, that the main issue is stated by the Board of Appeals in Defendant's Exhibit J, which is the decision of the Board of Appeals, and this main issue is stated on pages 6 and 7 of that decision of the Board and relates entirely to the question of invention.

Now, as to the prior art treated by the Board, the basic patent involved is that of Haller, Defendant's Exhibit B, in Figure 1 --

THE COURT: What is B?

MR. ROEMING: Exhibit B is the Haller patent.

THE COURT: Oh, yes.

MR. ROEMING: And I am speaking in relation to Figure 1, and I am going to compare that with Applicant's Figure 2 as shown in our exhibit H.

Exhibit H represents the drawings in Plaintiff's patent application. In Plaintiff's Figure 2 of the outboard motor is shown as it is also shown in Figure 1, and there the claim is represented generally by Figure 2, the shank by Figure 10, and the handle itself with the moldable rubber covering by element 14.

Now, Haller in Figure 1 discloses all the elements recited in the claims and relating to applicant's disclosure except the moldable cover.

THE COURT: Well, I still take it the novelty of the plaintiff's structure is the rubber cover.

18 MR. ROEMING: The rubber cover. The structure in Haller, element 9 and 14, corresponds exactly to elements 10 and 13 in Plaintiff's figures, and the only difference over the prior art is the rubber cover, as Your Honor has stated.

Now, the office, as cumulative evidence has also shown the patent to Kohler, but in view of plaintiff's counsel's argument, I personally consider that the Haller patent is a better reference, in view of the fact that the element 14 in Haller is symmetrically located with respect to the shank.

Now, in the prior art, relating to moldable covers, the Examiner originally relied on two references. First he relied on Morrell, shown in Defendant's Exhibit D. In Morrell, in Figure 5, there is shown a shank, 5, which a cross member, 6, and a moldable handle, element 1.

Now, specifically, Morrell on page 1, Column 1 of the patent discloses that the element -- I am sorry, there is an inconsistency in the Morrell patent. It is also identified as Element 2, in Figure 1, and in the description it is identified as Element 2.

On page 1, Column 1, of the Morrell patent, at lines 40 and 41, Mr. Morrell describes his know or handle as being of porcelain or the like, and I particularly stress the words "or the like," because in handles --

THE COURT: What are you reading from?

19 MR. ROEMING: That is Morrell, Your Honor. That is Defendant's Exhibit D.

THE COURT: I have the Morrell patent. Just where is that?

MR. ROEMING: Column 1, page 1, lines 40 and 41. It says: "The knob of porcelain or the like.

This is a patent of 1937.

THE COURT: Porcelain or the like. You would not say that rubber would be included in the words "or the like," would you?

MR. ROEMING: Well, I would say, that as of 1937 --

THE COURT: Well, there is no analogy between porcelain and rubber, is there?

MR. ROEMING: Well, it is moldable, in the same sense.

THE COURT: It is?

MR. ROEMING: And further I call your attention to the fact that the first paragraph of this invention gives the purpose for that patent: "The object of my invention is to make a doorknob which cannot be jerked apart or disassembled while in use. It is a further objective of my invention to make a knob, which can be locked in position without the use of a screw, and that will remain firmly locked when in use."

THE COURT: Well, I do not think there is any analogy between a doorknob and a clamp of an outboard motor. Is there?

20 MR. ROEMING: But in this situation, as far as this clamp is concerned, we have merely a handle, and a doorknob is merely a handle.

THE COURT: Yes, I know, but you might look at any number of doorknobs, and if you were working on an outboard motor, it would not give you an idea how to change the outboard motor, would it?

Of course, what I have in mind is whether it is invention to put a rubber coating around anything.

MR. ROEMING: That is another approach.

THE COURT: In other words, getting away from the jargon of the patent laws and just getting down to ordinary every-day consideration. That is what is really in my mind.

MR. ROEMING: I will pursue that with further references to the art. In view of the question raised by Your Honor, I would assume that you are raising a question as to whether this is analogous art.

THE COURT: Yes; I do not think it is analogous. I do not see any analogy between a doorknob and a clamp for an outboard motor. I think that is going pretty far for an analogy.

MR. ROEMING: If I may say one further word on this, the only position we have taken, is that the real invention is in the handle, and that both are handles.

21 THE COURT: Yes, but what the plaintiff says is his invention is taking the handle and coating it with a rubber coating.

MR. ROEMING: Yes, a rubber coating.

Now, in the Examiner's --

THE COURT: Now, that Haller patent, it seems to me is more analogous and perhaps the Kohler patent is analogous because it refers to a clamping device. Now, the Haller patent is not only analogous art but it is the same art because it relates to outboard motor clamps.

MR. ROEMING: Yes, Your Honor, and so does Kohler.

THE COURT: Yes, so does Kohler.

MR. ROEMING: And the only issue is whether the placing of that moldable cover on either Haller or Kohler's cross member is invention.

THE COURT: Very well.

MR. ROEMING: I should like to call attention to further patents relied on. The Examiner cited the patent to Stedman, which is Defendant's Exhibit F, and merely as illustrating rubber knobs. As the disclosure indicates, they are for household use, doors, feet for beds, tables and chairs, and so on.

But in that disclosure it is also stated at Column 1, page 1, lines 20 et cetera, "The principal object of my invention is to manufacture a knob, or the like, from material that overcomes the dis-
22 advantages heretofore enoountered and especially that of loosening on the support during use. Accordingly my knob is molded from rubber."

The Board of Appeals in its decision added three references, as indicated at page 2 of Defendant's Exhibit J, the Board's decision, and those are the patents to Ravenshaw, Rockwell, and Gullborg.

Of those, I should first like to discuss Rockwell, which is Defendant's Exhibit E. In Figure 5 of Rockwell, there is disclosed a handle for a valve, which consists of a shank, 6, with a cross member, which is not numbered but is then embedded in an outer portion 4, and that portion 4 is, as the disclosure indicates, at page 1, column 1, line 45, et cetera. It reads"This head is formed of a fibrous material, as asbestos, which is heat non-conducting and tenacious, thoroughly incorporated with a binder, as a gum similar to dammar or shellac, to which a filler is sometimes added."

I submit that that head, that molded material there, which is made of asbestos and a binder, meets the claims terms of being a resilient material.

THE COURT: Now, which claim are you referring to? Which patent?

MR. ROEMING: Oh, I am speaking of the applicant's claims.

THE COURT: But which patent are you referring to?

23 MR. ROEMING: I am referring to the patent to Rockwell, and speaking specifically of Figure 5 of Rockwell. That is Defendant's Exhibit E, Your Honor.

Now, in Figure 5 --

THE COURT: Does that show a rubber coating?

MR. ROEMING: No, it doesn't show rubber, but the claims don't call for rubber. It calls for a resilient material.

THE COURT: Well, does Rockwell show resilient material?

MR. ROEMING: I claim he does in his disclosure at page 1, Column 1, line 45, and reading: "This head is formed of a fibrous material, as asbestos, which is heat non-conducting and tenacious, thoroughly incorporated with a binder, as a gum similar to dammar or shellac."

And I submit that that is resilient molded material.

THE COURT: Of course, that is in a different art, isn't it?

MR. ROEMING: Yes, it is in a different art.

THE COURT: And hardly an analogous art.

Very well. You may proceed.

MR. ROEMING: As to additional references, the patent to/ Gullborg, which is Defendant's Exhibit A, and in Figure 2, there is shown again a handle with analagous structure.

24 THE COURT: I think really that there is too much prior art. The Patent Office obscures or, rather, the Board of Appeals obscures, and I do not say that in a critical sense because I have the highest regard for them, but I think they obscure their thoughts with irrelevant material.

The only question is: Is it invention to put a rubber coating around a well known clamp? Isn't that the question?

MR. ROEMING: Yes, Your Honor. May I call attention to just one more reference that the Board cited?

THE COURT: Every case comes down to one point, and if people would only get to that point.

MR. ROEMING: Well, I have stated that the Board's position is stated in its decision on this last page.

THE COURT: Yes, I notice that.

MR. ROEMING: And the Board actually takes the position that there is no invention in the combination of two references. While there are seven references before us, the evidence is cumulative.

THE COURT: Well, irrespective of references. They are obscuring the view of the forest for the trees.

The question comes down to whether it is invention to take a rubber coating and put it around a well known clamp. Isn't that what the whole case hinges on?

MR. ROEMING: Yes, Your Honor.

25 THE COURT: Maybe it is and maybe it is not. I am not expressing an opinion but that is the question in the case.

MR. ROEMING: Shall I have a discussion of those two issues of prolixity, an old combination at this point or shall I let that go to final argument?

THE COURT: Well, you may make that in final argument. We will take our mid-morning recess at this time.

(Thereupon a short recess was had.)

THE COURT: We will proceed with the case on trial.

MR. ROEMING: I have one more comment I would like to make, that in view of the fact that the main issue, of course, is invention, and in view of the arguments that have already been made by counsel for plaintiff, I should merely like to call attention to the fact that there is this material difference between Claim 1 and Claim 2, which might be relevant to the evidence to be taken, and that is that Claim 1 is positively limited only to a clamp, and Claim 2 is limited to the clamp in an outboard motor unit.

THE COURT: Will you state that again? Claim 1?

MR. ROEMING: Claim 1 is limited positively only to a manually operable screw clamp.

THE COURT: Claim 2 relates to any outboard motor unit having an internal combustion engine.

26 MR. ROEMING: Yes, sir. Claim 2 is much more limited. It actually specifies that the clamp and the structure of the invention is in an outboard motor unit, whereas Claim 1 does not so specify.

THE COURT: But the basic issue is the same?

MR. ROEMING: The basic issue of invention is the same.

THE COURT: You may proceed.

MR. ANDRUS: In regard to the last remarks of counsel, I point out that Claim 1 --

THE COURT: Will you speak a little louder?

MR. ANDRUS: In regard to the last remarks of counsel, I point that Claim 1 calls for a manually operable screw clamp for outboard motors. The claim is in Claim 1 right at the beginning.

THE COURT: Yes, I see it.

MR. ANDRUS: It is not positively so stated as he points out, but it is in there.

THE COURT: Claim 1 really is limited to a manually operable clamp in an outboard motor, and there is no such limitation in Claim 2.

MR. ROEMING: No, I beg your pardon. My position is merely that Claim 1 does not positively specify that the clamp is in an outboard motor unit. It merely says --

THE COURT: I see the issue. I do not think it makes any
27 difference, does it?

Now, you may proceed.

MR. ANDRUS: In regard to prolixity, I can't help but make one point that I made before the Board of Appeals, but they didn't listen. We showed them that a 56 line claim to only six elements appears on page 71 of the Official Gazette, in February, 1954, which was the time we were appealing, and another one of 64 lines appeared there. They were objecting to the number of lines.

Do you get the point, Your Honor?

THE COURT: Well, I do not care to hear about that. You know, I never permit myself to become immersed in the verbiage of claims. I think it is unfortunate that our patents have that tendency.

I want to ascertain what the invention is, or what the applicant says he invented, and then determine whether that is patentable or not. After I pass that, then I am willing to go into the details of the claims.

MR. ANDRUS: Well, now, Your Honor, before proceeding with the testimony of Mr. Kiekhaefer, I invite the attention of the Court to the fact that the answer filed in this case admits the filing of the application, and that plaintiff has complied with all conditions and regulations of the laws of the United States and rules of the Patent Office.

Under those circumstances, it hardly seems necessary
28 to introduce the file wrapper, but I understand it is customary
to do so, and I offer it.

THE COURT: The only usefulness of the file wrapper in most of these cases is that the application is in the file wrapper. I have often urged counsel if they would give me a separate copy of the application, separate and apart from the file wrapper, I would not need the file wrapper.

MR. ANDRUS: If I had known that, I would have done it that way, but I have the file wrapper.

THE COURT: The file wrapper will be admitted.

MR. ANDRUS: I offer that in evidence as Plaintiff's Exhibit No. 1.

(The document was received in evidence and marked Plaintiff's Exhibit No. 1.)

MR. ANDRUS: Mr. Kiekhaefer, will you take the stand?

Thereupon,

ELMER C. KIEKHAEFER,

the plaintiff herein, was called as a witness in his own behalf and, being first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ANDRUS:

Q. Mr. Kiekhaefer, are you the plaintiff in this case? A. I am.

29 Q. What is your occupation? A. Executive.

Q. In what relation? A. I am president of the Kiekhaefer Corporation.

Q. Do you do anything else? A. I do a lot of the engineering and inventing on my products.

Q. How long have you been president of the Kiekhaefer Corporation? A. Since 1939.

Q. Did the corporation exist prior to that?

THE COURT: Our practice generally is to have a record made of the witness' name and address.

You may ask that.

MR. ANDRUS: All right, Your Honor.

BY MR. ANDRUS:

Q. Will you give your full name and address? A. Elmer Carl Kiekhaefer; and my address, 343 South Washington, Cedarburg, Wisconsin.

Q. Well, now, did the corporation exist prior to 1939? A. I organized the corporation in 1939.

Q. What was the business of the corporation at that time? A. We began building outboard motors in 1939.

Q. You didn't take over any outboard motor business? You
30 started from scratch? A. Well, our predecessor company was
building outboard motors prior to 1939.

Q. Were they of the same type that you started building? A. Basically, they were the same type, yes.

Q. Well, now, what did you do personally prior to 1939? A. Prior to 1939 I was chief engineer for Stern's Magnetic in Milwaukee.

Q. About how long? A. Eleven years.

Q. What did that work entail? A. Developing electrical devices, such as clutches, brakes, magnetic separators, and other electrical machinery.

Q. Are you a member of any engineering organizations in your field or associations? A. I am a member of the SEA, Society of Automotive Engineers; also the American Institute of Electrical Engineers.

Q. Anything in the outboard motor field? A. I happen to be an officer of the American Power Boating Association.

Q. Then have you been recognized as an inventor in your field before? A. I believe so. I have --

THE COURT: I think we have enough preliminary background.

31 MR. ANDRUS: Very well, your Honor. Thank you, Your Honor.

BY MR. ANDRUS:

Q. Will you tell us briefly what the Kiekhaefer Corporation did in the early days, let us say, pre-war? A. We built outboard motors, industrial engines, power chain saws, generator sets, and small aircraft engines for the guided missile section; and we finished 55 development contracts for the military during World War II.

Q. Did you manufacture outboard motors during the war? A. On a minor scale; yes.

Q. Do you understand that this suit involves your application for a patent on an outboard motor clamp? A. Yes, I do.

Q. Do you consider yourself the original and first inventor of that clamp as referred to in these claims? A. I do.

Q. Have you ever abandoned that invention? A. No.

MR. ANDRUS: Your Honor, I would like to offer this brochure of the 1957 line of outboard motors manufactured by the plaintiff.

MR. ROEMING: No objection.

THE COURT: It may be admitted.

MR. ANDRUS: As Plaintiff's Exhibit 2.

32 (The document was received in evidence and marked Plaintiff's Exhibit No. 2.)

BY MR. ANDRUS:

Q. Will you state what that brochure shows? A. This brochure shows our current line of outboard motors, in sizes from 6 to 60 horsepower, all equipped with my insulated type clamp screw.

Q. Is there a page of that that you can direct the Court's attention to with respect to your line showing all the units, side by side? A. Page 2 and 3 show the entire line so equipped, at the bottom of the page.

Q. When you say so equipped, do you mean that each of the motors there have the clamp construction of the present invention? A. That is right.

THE COURT: Now, Mr. Andrus, which part shown in the drawing is the invention?

MR. ANDRUS: I thought that by having this in at this time --

THE COURT: I beg your pardon?

MR. ANDRUS: I thought by introducing this first, we can probably direct your attention better to which part is involved.

THE COURT: Very well.

33 MR. ANDRUS: I offer this.

THE COURT: You are offering it in evidence? It is admitted in evidence.

There is no way of marking it.

MR. ANDRUS: It is a clamp for an outboard motor, constructed according to the present claim.

(The object was received in evidence and marked Plaintiff's Exhibit No. 3.)

THE COURT: You may proceed.

BY MR. ANDRUS:

Q. Now, Mr. Kiekhaefer, can you tell us briefly just what this Plaintiff's Exhibit No. 3 is? A. This exhibit shows in the flesh, so to speak, the actual production and construction as it is used.

The hand grip here has been designed so that it can be turned under stress, even with wet hands, and these parts are usually wet in application, without slipping off. Also so that they can be turned with readiness and handiness. The transom of the boat or the back part of the boat is represented by this board.

Stresses up to 700 pounds are exerted by the propeller which causes the back end of the boat to flex constantly up to half an inch with the result that these screws have a tendency to loosen, and it is necessary from time to time to quickly check to see that they do not slip, so that the engine does not lose its position, which might
34 capsize the boat, particularly with the larger engines.

The screw, while in itself is a very simple appearing element, it is a very important element. It has to carry not only the vertical stresses of the engine but also the lateral stresses of the engine, in addition to transmitting the entire thrust force of the engine.

That is why we had to abandon the old type of screw, which gave us considerable complaints from the customers.

BY THE COURT:

Q. Well, what was the old type of screw? How does it differ from this type? A. Your Honor, I would like to demonstrate this if I may.

The original construction consisted of a clamp screw with a pin through it. It was something like trying to turn -- to use a ten-penny nail for a doorknob. The amount of effort necessary to maintain tightness would invariably hurt the hand and required a glove to get sufficient tightness, or it would induce the customer to use a wrench of some type, or place a bar on it.

Q. Well, what is the difference in the two screws? A. The difference in the new screw is that because of the shape and having a torque arm on both sides of the center, it is much easier to get the mechanical effort necessary for the required tightness than it is with
35 this device. This also rattles.

In the modern outboard motor, where quietness is in great demand, this type of clamp screw became out of date because of its rattling under high frequency vibration, and it stood out like a sore thumb.

Q. Well, is this handle the invention? A. The invention, as I see it, Your Honor, is to mold a resilient material over this type of a bar.

Q. Well, this is the member that is involved in the invention; is that it?

MR. ANDRUS: Well, that is the former type.

THE COURT: No, no; on the model.

This is a big structure. I want to know whether the handle concerning which the witness is testifying is the member in that structure that is involved in the invention?

MR. ANDRUS: That is so, Your Honor.

THE COURT: And the invention consists in putting a resilient material, like rubber, around the screw?

THE WITNESS: Around the screw.

BY THE COURT:

Q. Around the handle of the screw? A. Around the handle so it will retain it at all times.

Q. I see. A. Still allowing the end to project through so that
36 the necessary riveting operation can be done on this washer.

Q. You speak of resilient material. What other types of resilient material, besides rubber, would be suitable? A. Some of the plastics, the vinyl plastics, which, of course, permits color.

For this engine, which is painted in dark colors, we use a black handle. For engines that are painted in a red color, we put a matching plastic.

Q. In other words, you mean you use pastel shades;is that it? A. That is what the customer wants today.

Q. Especially if you have ladies who are interested in motorboats. A. Your Honor, the advent of the electric starter has brought that about. We have ladies, as well as younger children now, running outboard motor boats, and therefore again we need a clamp screw that does not smudge the hands, and which can be more readily turned by the weaker sex.

MR. ANDRUS: Your Honor, I offer in evidence the former type of clamp handle and shank.

THE COURT: It may be admitted.

MR. ANDRUS: Testified about by the witness, as Plaintiff's Exhibit 4.

37 (The object was received in evidence and marked Plaintiff's Exhibit No. 4.)

MR. ANDRUS: I also offer in evidence a handle similar to the one, or the two handles on Exhibit 3, and which has been cut to show the internal construction of the molded part of the handle.

THE COURT: It may be admitted.

MR. ANDRUS: As Plaintiff's Exhibit 5.

(The object was received in evidence and marked Plaintiff's Exhibit No. 5.)

BY THE COURT:

Q. Well, where is the resilient material? Is this a form of plastic? A. That is plastic, Your Honor.

Q. That is the resilient material? A. Yes.

Q. You don't actually use rubber? You use plastic? A. We use plastic on some models and rubber on others.

MR. ANDRUS: I offer in evidence a rubber model similar to Exhibit 5, but as Plaintiff's Exhibit 6.

THE COURT: Very well.

(The object was received in evidence and marked Plaintiff's Exhibit No. 6.)

BY THE COURT:

Q. And do both the old and the new structure have a rotary motion?

38 A. Yes, Your Honor.

THE COURT: Very well. You may proceed. I think I see it now.

BY MR. ANDRUS:

Q. Mr. Kiekhaefer, did you receive any complaints in regard to that old construction when you marketed outboard motors with it?
A. Yes, we received a number of complaints.

Q. What was the nature of those complaints, generally? A. With the pin type construction, which was necessarily loose, high frequency vibration would wear the plating from the bar, and it began to rust, and particularly in salt water areas. As the rusting continued, the bar would bend, very much like a rusty nail, and the thing was further aggravated by perspiration, which added to the corrosive tendencies of the old construction.

The new construction has eliminated that complaint.

Q. What about the question of users being able to tighten the clamp sufficiently in the old construction? Did they find it necessary? A. Well, in the old construction they had a tendency to use wrenches or a bar inserted over the pin to get sufficient tightness.

Q. What happened as the result of the use of a wrench, for
39 instance, on the old construction? A. Invariably they damaged the bracket itself by overstressing the screwing action.

Q. What would happen to the bracket? A. Well, the bracket would break and permit the loss of the engine.

Q. Did you have many complaints of that kind? A. Definitely.

Q. And did the users want a new engine or something in response to that sort of thing? A. That was the only way we could settle some disputes.

Q. Now, were there any other types of complaints, for instance, when the motor kicked up in behind or something of that character? A. It would happen occasionally that when an outboard motor struck an object the engine would tilt upwardly to the extent where the cowling or the covering of the engine would be impaled on the steel pins and puncture the actual housing of the outboard.

Q. Was there any objection raised by users in connection with noise or anything of that kind? A. Well, the loose pin had a tendency to rattle, which increased with use, and having two of those loose pins aggravated the situation even more.

Q. Did your competitors have this same type of prior clamp with the loose bar in the shank? A. Yes.

Q. And do you know whether they experienced a good many complaints? A. We presume they have.

In the test engines we purchased from our competitors, we did find the same troubles.

Q. And did any of them do anything about it? I mean, in the war period or before, along in that period? A. Some of our competitors copied our clamp screw.

Q. That was after you came on the market with your new clamp? A. That is correct. In fact, there were three competitors that adopted this clamp screw.

Q. Did you try to cure some of these complaints by any other means before you arrived at the particular invention in question here? A. Yes, we tried several things. We tried a bending operation whereby the handle would become an L shaped piece, but that looked very crude, and it was expensive to manufacture.

Then, too, we tried to forge them out of one piece, but the manufacture was too expensive.

We tried placing aluminum bushings over the rods to center it. However, a metal, such as aluminum, would corrode quite rapidly from the action of perspiration, as well as sea water, as well as from
41 the galvanic actions that existed, due to the electric motor series, electrolysis as it is sometimes called, between aluminum and steel.

Q. Where were you using the aluminum in that instance? A. The aluminum was in the form of tubing pushed over the ends of the cross rods.

Q. And why don't you use some other metal, such as steel? A. Well, steel is difficult to keep from rusting, and, of course, we are weight conscious at all times in the manufacture and design of outboard motors.

Q. Now, when you put a new type clamp on your outboard motors, did you receive any more complaints like you have indicated with respect to the old ones? A. That seemed to eliminate all of them.

Q. No more complaints on the clamp at all? A. No.

Q. Now, did you make any tests on the clamp when you developed it at first? A. Any new device, yes, any new device, such as a clamp, was tested for a period of approximately six months at our salt water laboratories.

Q. Did you have to make any changes as a result of those tests? A. There were some changes in the composition of the plastic material.
42 There were no changes in the rubber materials.

Q. Did you learn of any new advantages from those tests, or did you appreciate immediately when you arrived at this construction all the advantages it would have? A. No, there were some advantages that developed later, (with) which the advent of electrically started and controlled outboard motors. We found it a great advantage to have clamps that did not crush electrical cables and harnesses leading from the engines to the operator's control panel at the front of the boat.

Q. How about the question of the use of a wrench? Can you use a wrench on this handle? A. Not very well.

Q. Why not? A. There is no place to get a grip with the wrench.

Q. I take it that your users did use wrenches on the old ones? On the old one? A. That is correct.

Q. What would happen if they tried to use a wrench on this? A. Well, the wrench would slip off. I don't know where they would apply a wrench without making a special one.

Q. Did that eliminate this question of over-tightening of the clamps so that it would stress so much it would break in service? A. Yes,

43 it more or less put a human torque rating on the fastening effort.

Q. In other words, the handle discouraged the use of wrenches; is that right? A. That is correct.

Q. From then on you had no complaints from customers who overtightened and broke the clamps? A. I know of none.

Q. Did you think that that would be an advantage at the time when you first considered this kind of construction? A. Well, no, we didn't. We were after a handle that eliminated the noise, a handle that was permanent, and a handle that complimented the smooth stream lined design that came into being.

Q. Well, now, Mr. Kiekhaefer, have you any indication as to the public acceptance of this new clamp, other than the fact, for instance, that no more complaints came to you? I assume the public would be pleased with that. But have you any indication of public acceptance, such as sales increase, or anything of that kind? A. Well, I checked the records. We have produced approximately 750,000 of these clamp screws.

Q. Of the present invention? A. Yes, sir, of the present invention.

44 Q. How many did you produce of the whole type, prior to that, for instance, in relation? Do you have any idea? A. Without checking the records, I would guess somewhere around a third of that.

MR. ANDRUS: I don't know, Your Honor, whether it is customary to read the claims in any sense and have a witness, such as Mr. Kiekhaefer, point out the various elements in the exhibit.

THE COURT: Well, that is entirely in the discretion of counsel. It is not absolutely necessary.

MR. ANDRUS: I am wondering if you like that sort of thing because it is for your benefit, Your Honor.

THE COURT: I do not exclude it but I do not consider it helpful.

MR. ANDRUS: I see.

BY MR. ANDRUS:

Q. Could you state, Mr. Kiekhaefer, whether the elimination of complaints in that sort of thing has actually affected your sales? Do you think so? A. I definitely believe this was a desired feature and helped sales.

Q. And you advertised this, as such, did you? A. Yes.

Q. As one of the major features? A. Yes.

45 Q. What competitors have copied this clamp of yours? A. Martin Outboard Motors, Chris Craft Outboard Motors, and Oliver Outboard Motors.

Q. Could you very briefly summarize for the Court some of the, what you consider the outstanding advantages of this new construction? A. Yes. The advantages of this handle -- there are quite a number of them. At least 25 of them. I don't know whether I can remember all of them at this time, but the main thing is that it is a handle that can be easily tightened by anyone, regardless of sex or age.

It is a smooth handle that does not injure people in the boat, such as the old handles have done, particularly where these boats are raced and the operator is sitting close to the engine.

If electrical cables become entangled or crushed on this member, it is an insulator, and therefore it does not cause short circuits.

If a fuel line leading to the remote fuel tank on the engine becomes squeezed or pressed on to this handle, it doesn't usually sever it, as it was, or puncture it, as it was with the old type of cross bar.

Next, it has eliminated the noise angle. Next it has permitted a smoother design, permitting color changes, to compliment the color on the rest of the engine.

46 It is corrosion proof inasmuch as the plastics and rubber materials used are unaffected by salt water or perspiration.

It has a very real advantage in that it can be manufactured quickly and cheaply, inasmuch as the peculiarity of this particular clamp, having a thrust washer, which engages the boat transom, has to be rivoted in place in a closed area. Subsequently the rivoting has to be reversed, the handle has to be on the small part, and the manner has to be on the large part, or on the upward part, which extends through the plastic. That is a great production advantage.

Without having the list here, I can't remember all of them.

Q. I believe that is sufficient, Mr. Kiekhaefer, in addition to those that you have brought out previously in your testimony.

MR. ANDRUS: Now, Your Honor, I originally planned to not discuss these references with the witness, but I am not sure what the practice is here in regard to that.

THE COURT: Well, some members of the Bar do discuss the references with the witness and others do not. I personally have always had the inner feeling that discussing the prior art with the witness is merely making an argument under oath, and while I have not actually frowned on the practice, I do not believe in it.

47 Of course, the Court will hear argument of counsel on the prior art. If there are any technical aspects, a knowledge of which is necessary for an understanding of the prior art, that is different, but merely having the witness argue the differentiation between the prior art and the invention, I think that is better done by counsel.

MR. ANDRUS: I had no intention of doing quite that. Counsel for the Patent Office have really cited only two patents in relation to outboard motors.

THE COURT: That is correct.

MR. ANDRUS: And neither one of them have the crucial portion of the element here.

THE COURT: You can ask him that, but you can argue that just by reading it.

I observe that neither the Haller nor the Kohler patent, which are the two patents in the outboard motor art, show a resilient material surrounding or coating the handle. Is that correct?

MR. ANDRUS: I believe that is correct, Your Honor.

THE COURT: Mr. Roeming agrees with that.

MR. ROEMING: Yes, Your Honor.

BY MR. ANDRUS:

Q. The only item I wanted to point out with the witness was whether these illustrated types of handles that might be considered similar to the ones used prior to the present invention.

48 A. The Kohler patent is exactly what we used in our prior construction. It is interesting to note that Kohler recognizes the problem of permanently fastening, having devised some kind of vise grip to accomplish what we have accomplished in another manner.

The Haller design, I don't believe is practical. I don't believe it can be made.

Furthermore, I have never seen the cross bar construction, such as illustrated here, in use on any outboard.

MR. ANDRUS: I believe that closes our direct examination of Mr. Kiekhaefer, Your Honor.

CROSS EXAMINATION

BY MR. ROEMING:

Q. I have only one question on the last comment of the witness to the effect that, I believe you said, to Haller's Figure 1, that there was something about that that you thought could not be made or that it was impractical? A. That is correct.

Q. You mean, as to elements that are pertinent to your claim or as to other elements shown in that figure which do not relate to your claims? A. Both.

Q. Will you specifically point then those elements which are analogous to yours, which you think could not be made in a practical
49 way? A. Piece No. 14 would have to be made of very close controlled ground stock so as to establish tolerances.

Piece No. 9 --

Q. May I interrupt you there? A. Yes.

Q. But then you will concede it could be made as shown? A. As related to my element, to my patent.

Q. But you are criticizing the reference to Haller that it shows the element 14 through the element 9, but you are not contending that it is not possible for a mechanic to make that structure? A. No.

Q. Whether it is precipated or not? A. I maintain that a precipate is too expensive to be practical and would not be used.

Q. But it can be made? A. It can be made in a laboratory, yes, sir, but not on a production basis.

Q. But it can be made also on a production basis if you want to stand the cost? A. Yes, I guess so.

Q. Are your other objections to the Haller reference of a similar nature, or do you have other specific ones? A. Well, I have reference to No. 10, showing a channel or a groove cut in the screw,
50 with a washer, which is apparently cast around it.

I don't believe that any manufacturing man would know how to do that.

Q. Now, may I ask you this question: Do your claims distinguish from such structure? A. I would have to go over the claim in detail.

MR. ANDRUS: I believe that would be a matter of argument, Your Honor.

THE WITNESS: Yes, we do call for a clamp member head secured upon the end of said shank opposite cross member.

BY MR. ROEMING:

Q. It is your contention then that the head 11 of Haller is not secured upon the shank member 9? A. It is secured but it would take a miracle to secure it.

Q. It is secured? A. As shown, but there is no way to do it in the art of manufacturing.

Q. May I ask you this question: If you have a blank 11 as shown in Haller, which those lips extending at right angles to the blank couldn't anyone skilled in the forging art bend those lips in to secure the member over the head tem? A. If the piece was out in the open, yes, but you must remember that the piece is confined in a U-shaped clamp, such as we have here.

51 Q. I will ask you the question further, specifically, couldn't that then be done by one skilled in the forging art in the position in the clamp? A. I don't believe so.

Q. That is merely your opinion? A. As a manufacturer for 30 years, yes, that is my opinion.

Q. But you have no positive evidence of tests or experience of having tried it? A. It may have been tried by someone in our plant. However, I would have to check.

Q. May I ask you one further question? We didn't go into the details of your training, but I gather from the line of your early testimony that you are an electrical expert? A. I have invented many electrical devices.

Q. Are you an expert in the forging art? A. Quite well. We buy millions of forgings.

Q. But your purchase of forgings, sir, I wouldn't say qualifies you. May I ask you this -- A. However, we design the forgings, which requires a very thorough knowledge of the art or they could not be forged.

Q. But you do not actually making forgings? A. We do not make forgings in our plant.

52 MR. ROEMING: That is all.

MR. ANDRUS: That is all of this witness.

THE COURT: You may step down.

(Thereupon the witness was excused.)

MR. ANDRUS: The plaintiff rests, Your Honor.

THE COURT: Mr. Roeming.

MR. ROEMING: No argument from the plaintiff?

MR. ANDRUS: Is argument in order at this point?

THE COURT: Oh, yes.

MR. ROEMING: I submit that the folder in Your Honor's hands be accepted as Defendant's Exhibit 1.

THE COURT: You are offering it in evidence.

MR. ROEMING: I offer it in evidence.

THE COURT: It may be admitted.

(The document was received in evidence and marked Defendant's Exhibit No. 1.)

THE COURT: The Court will be glad to hear oral argument.

MR. ANDRUS: As I pointed out in the opening statement, Your Honor, this is a simple change that has taken place, but it is of great significance in this field.

I believe the testimony here will show and does show that for a long period of time the old type of handle had been causing complaints, even to the extent of over-tightening of the clamps by wrenches, because you could not turn a little wire, like opening something with a

53 nail in your hand, trying to turn it, when you have the kind of pressures that are involved here. Loss of motors became a significant factor to this manufacturer with his old type of handle and clamp.

Now, he tried a number of other things that he testified about, three other types of construction, I believe he testified about. One was a single forging, one with aluminum rings on it to try to hold that pin in place so that it would not come loose or rattle, and with the tremendous vibrations of the engines, none of those seemed to be successful, or within the cost range that the public would accept.

Now, the inventor has done a simple thing. The simplicity is evidence of invention in this case, rather than the reverse because it has eliminated every complaint to this manufacturer's point on clamps. It has meant a good deal to him as the result. It has been copied by his competitors.

With those kinds of facts, the question of invention, which is all there is at issue, and there is no anticipation, the art didn't have it, and he contributed it, and the question of invention with the tremendous, let us say, importance and results obtained boils down to: Why didn't others do it? And why don't they do something else if it is so easy to cure these defects?

Our competitors don't do something else. There are some that tried to, but I mean the competitors that he is talking about that needed
54 the improvement in order to compete, copied, and taking into consideration these various factors of public acceptance, long need, nobody doing anything, the inventor in every instance has to be the doer. When he comes up and does it, he should be entitled to the protection of what he contributes to the art.

I believe Your Honor is familiar with all these platitudes that I have been putting forth.

What may be simple, of course, in one place might not be so simplein another place. The inventor has put two and two together. I believe this inventor has put the two and two together, and it has resulted in a number of surprising angles.

For instance, no longer could the user use the wrench on this and not to overtighten his clamp and lose his motor.

Nobody would realize that any of these other things, the other attempts that Mr. Kiekhaefer made, and none of those would have solved that problem at all.

In every instance where you use the plain metal cross bar, it is possible to use the wrench, to either break it or losen it or overstress the clamp. In this instance, the construction of that handle is such that it applies a normal torque limit, so that you never overstress your
55 clamp, and yet you can get without hurting your hands the necessary tightness, as Mr. Kiekhaefer pointed out. With a construction such as that, it seems to me that invention just must be present.

Now, I do not know how far Your Honor wants me to go into the detailed wording of the claims.

THE COURT: That is entirely within your discretion, Mr. Andrus. I will hear you as fully as you wish to be heard.

MR. ANDRUS: Well, I assume you have read the claims by now.

THE COURT: Oh, yes.

MR. ANDRUS: And I assume, too, that you probably understand them.

THE COURT: I understand them.

MR. ANDRUS: And any explanation I could give you at this point would probably be taking up the time of the Court unduly, as far as I can see.

Now, the other questions of minor interest, like prolixity, are, let us say, expressing relationships that are deemed important between the different elements, and I think that is all we have done here, and those questions should be beside the point.

I don't think they are material in this case, and this question of
exhausted combination too, it seems to me, is somewhat out the window.
The invention has its importance in this art, not elsewhere, and you
56 have to consider it from the standpoint of the problems you are
encountering and whether you successfully solve all those problems with
a given chain.

I think in this instance the evidence shows pretty clearly that we have solved probably all the problems on our clamp situation in this art, and these claims are couched in outboard motor art terms.

There is a technicality that counsel would raise in regard to the fact that in Claim 2 we start the claim with in an outboard motor. He said that is in the outboard motor art. Then as to Claim 1, he says that is not in the art because we started with these words, a manually operable screw clamp for outboard motors. Personally I have never been able to see the technical difference as being one of merit in that instance between the two types of clamps.

All of the expressions in Claim 1 related to these problems and to the solving of these problems, or the relationship of the parts necessary for that. So that it seems to me we should be entitled to both types of claims. They are really not different in that respect.

There are some other technical differences in the language, and just to have two claims is not objectionable in a situation like this in order to give the inventor an opportunity to have his invention stated in somewhat different language in each. I think that they are both pretty much in the same scope.

57 There are cases in the Patent Office of course, but they have 15, 20 or 30 claims on a simple thing like this, where they object to that, and those cases have sustained a type of prolixity that we talk about, but in this kind of thing, the two claims should be permissible, and it is my earnest solicitation that Your Honor grant the relief sought in the complaint.

I thank you very much.

MR. ROEMING: Your Honor, I should like to direct my remarks first to the evidence that was taken. Mr. Kiekhaefer testified as to various advantages of his handle. He indicated that among the problems to be solved was the fact that the original handle hurt the hand of the operator. He also testified that it rusted or corroded in use. He also testified that it had the advantage that it was insulated, that the new coating insulated the old handle. He stated other various reasons as advantages but I would like to direct my remarks to those three.

Disregarding all the art before us except that which is admitted by the plaintiff, I submit that given the problem of providing a cushing for the hand on the old structure to prevent rusting, to provide insulation, it would be obvious to anyone skilled in the art to provide a cushion material on that handle, which would prevent the hurting of the hand, which would coat it to prevent rust, and which would coat it
58 in a way to insulate it from electrical matters.

Now there is a suggestion that when this new handle, or rather, the evidence, that when the new handle was introduced to the art, it was immediately copied.

I want to direct your attention to the fact that there was no evidence taken as to the relative cost of this modern appearing handle and the very crude old handle which consisted merely of a pin through a shank.

Now, I suggest that what plaintiff has actually accomplished is that he has put on the market a more expensive handle which has met trade acceptance, and immediately the competition had to meet it.

THE COURT: Well, the mere fact that his handle is more expensive than the old handle has no bearing on the question of invention, does it?

MR. ROEMING: I think to this extent: That the argument was made that this problem was present in the art for a long time and that the plaintiff is the first to solve it.

THE COURT: Now, I do not run outboard motors, I am not a motorboat enthusiast, but I am quite sure if I were one that I would rather use the plaintiff's handle than the old handle.

MR. ROEMING: There is no question about that. I don't pretend to argue that he doesn't have a much better handle. I concede
59 I myself would be in the same position.

THE COURT: The question is whether it is invention.

MR. ROEMING: That is right, whether it is invention, and I think that factor of putting a more expensive article on the market is a big factor in competition.

THE COURT: Well, I think I will let you finish after the luncheon recess.

(Thereupon a recess was taken from 12:30 o'clock p. m., to 1:45 o'clock pm.)

60

AFTER RECESS

(The trial was resumed at 1:45 o'clock p. m., pursuant to the recess.)

THE COURT: You may proceed, Mr. Roeming.

MR. ROEMING: At the time of the recess, Your Honor, I had been speaking to the point of the evidence of commercial success and solution of long felt need in the art. As Your Honor indicated, these matters are not necessarily pertinent to the question of invention.

I submit at this time that the rule as to such evidence is that evidence as to these matters is significant only when there is doubt as to the question of invention, and in this case on the basis of the statement of the Board, on the last page of its decision, I submit, that here there is no invention.

On the second issue discussed in opening argument, old combination, I will not argue that further, since on the facts in this case the question of invention and old combination necessarily stand together.

As to the question of prolixity, which is raised in another rejection affirmed by the Patent Office, I will make no argument other than to submit for Your Honor's consideration a decision, Ex Parte Duncan, which was affirmed by the Appellate Court of the District of Columbia in 1920, as shown herewith.

61 On page 208, Column 2, the Commissioner had criticized claims for excess terminology, and on appeal to the District Court, at 211 of the same volume, that decision was affirmed.

As plaintiff's counsel has previously indicated in this case, the Board reversed the Examiner on that issue as to Claim 2 and sustaining him as to Claim 1, and that decision will have to stand on its own feet.

That is my argument, Your Honor.

THE COURT: Do you wish to say anything in reply, Mr. Andrus ?

MR. ANDRUS: Well, in regard to this last case, in re Duncan, Your Honor, that case did not make too much sense, since there the Commissioner, if you will note in the second column on page 208, gave the applicant the opportunity to amend his claim in the manner here kind of proposed by counsel, in that sense, and awarded a patent, would have awarded a patent to him.

He appealed to the Court of Appeals and it doesn't appear what happened after that, but the Commissioner gave him the right to amend and get his patent anyhow. So that that kind of criticism doesn't seem to stand up very far.

On the exhausted combination too, there is no single reference in the art showing the whole combination, and I have never seen the application of an exhausted combination argument without the citation of at least something that shows all of the principal elements of the claim. 62

In the present instance, as I said before, the problems arise with outboard motors, and they are peculiar to that art. An applicant should not be compelled to broaden his claims by leaving out the necessary characteristics and relationship of those elements that are required in connection with his improvement in that field.

I did want to stress just briefly the fact that, or remind your Honor, of the fact that the invention has gone on to 750,000, or three-quarters of a million clamps have been used in the outboard motors of this client, and we don't know how many have been used by competitors who have copied the invention. I think that has a tendency to bear on things.

I do not think that there many of the arguments that counsel has made that I need to answer at this point. It seems to me that we have shown to Your Honor the useful nature of this thing, with its great accomplishment in this particular field, and the need for it, and the fact that it did solve the problems; and the simple nature of it is all the more evidence of invention rather than the absence of it, and that is the position I urge upon the Court, and I thank you.

PLAINTIFF'S EXHIBIT NO. 1

Number 226709 Patent No. Appeal No. 395 84
Div. 52

Name: Elmer Carl Kiekhaefer
of Cedarburg
State of Wisconsin

Invention: Outboard Motor Clamp

Application Filed Complete May 16, 1951

196251 Petition, Specification, Oath, First Fee $30 2 sheets Drawings, May 16, 1951

This is to certify that annexed hereto is a true copy from the records of the United States Patent Office of the file wrapper and contents of the file identified above.

By authority of the
Commissioner of Patents

March 7, 1957
Date

/s/ W. G. Lanham, Jr.
Certifying Officer

1

SPECIFICATION

OUTBOARD MOTOR CLAMP

This invention relates to outboard motor clamp brackets and particularly to the clamp screws thereof adapted to be manually turned and tightened for securing the motor.

Such clamp brackets provide for removably securing of the motor to the boat transom, and in the past have presented problems arising out of the tendency of the clamp screws to rattle and the clamps to loosen by reason of such rattling.

Heretofore, such clamp screws have been provided with handle means which comprised either a cross member rigidly secured for manual turning of the screw, or a handle member slidable or pivotal with respect to the screw. The type including the rigid cross member presented no problem of loosening by rattling, but is costly to manufacture. The clamp screw, including a slidable or pivotal handle member, presents manufacturing and assembly problems which increase its cost, and is subject to objectionable rattling.

A further consideration in the provision of clamp screws is the fact that the screws project so that when the motor is removed from the boat and placed on the dock, the weight of the motor is then supported almost entirely by the clamp screws.

This application is a continuation in part of the present inventor's earlier filed application Serial No.772, 343, for Elastic Hand Grip, filed September 5, 1947.

2 The principal object of the present invention is to provide a clamp that will solve the problems referred to above and that will avoid the objectionable features of prior clamp construction.

Another object of the invention is to provide a clamp with a resilient handgrip that secures the transverse rod in place relative to the shank, regardless of possible looseness of the rod in the bore of the shank, and prevents a rattling of the rod in the bore.

Another object is to provide a clamp employing a clamp head riveted to one end of the threaded shank and a grip handle at the other end, and wherein the head can be assembled upon the shank after threading the same in its support and without damage to the handgrip.

Another object is to provide an embedded handgrip for the clamp disposed rearwardly of the outer end of the shank, so as to be protected by the latter upon use of the clamp as a side support for the outboard motor upon a dock or the like.

The invention is illustrated in the drawings wherein:

Figure 1 is a side elevation of an outboard motor showing the same secured by the clamp bracket on a boat transom which latter is broken away and sectioned;

Figure 2 is a side view of the outboard motor laid upon a dock and supported by the clamp screws;

3 Figure 3 is a side elevation of a clamp screws prior to threading the same in place and securing of the clamp head thereto;

Figure 4 is a view similar to Fig. 3 showing the handgrip sectioned centrally;

Figure 5 is an end elevation of the clamp screw; and,

Figure 6 is a detail view partially sectioned and showing the manner of assembly of the clamp.

Referring to the drawings, the outboard motor 1 has a clamp bracket 2 securing and supporting the same upon the transom 3 of the boat 4.

The outboard motor 1 includes the power head 5 driving an underwater propeller 6 and producing a substantial vibration tending to loosen the clamp upon the transom.

The clamp bracket 2 has a cast or forged metal body of generally inverted U-shape to slip over the top of the transom 3. The rear leg 7 of the clamp body presents a flat clamp surface adapted to engage the rear side of the boat transom. The forward leg 8 of the clamp body carries two clamp screws 9, which are adapted to tighten the clamp upon the front side of the transom.

Each clamp screw 9 comprises a threaded shank 10, threaded through leg 8 of the clamp body, and carrying a clamp head 11 centrally riveted upon the inner end of the shank by means of a central extension 12 of the shank projecting through the head and peened over thereon.

4 The outer end of each shank 10 is preferably free of threads and has a transverse bore therethrough receiving a transverse metal rod 13 which transmits the major rotational forces of the operator's hand to the shank to effect tightening and loosening of the clamp. Rod 13 may be loose in the bore of the shank or it may be constructed of a generally drive fit therein with rough tolerances resulting in a certain number of loose assemblies.

The rod 13 has applied thereto a generally resilient and elastic handgrip 14 which preferably embeds the entire rod and the adjacent portion of shank 10. The handgrip 14 may be constructed of a tough grade of rubber molded and vulcanized upon the rod 13 and shank 10, or of any rubber-like synthetic material that has the desired resiliency and bonding characteristics.

In the molding operation the handgrip 14 should bond to or grip the metal surfaces of the shank sufficiently to prevent rattling of a loose rod 13 therein. Also, the material of the handgrip 14 should be sufficiently resilient or elastic to yield to the movement required by a loose rod 13 in transmitting rotational forces in either direction to the shank without shearing of the material from the surface of the shank.

The handgrip 14 is preferably of substantial diameter as compared to rod 13 and shank 10 and extends transerve to the shank to provide a nice fit in a operator's hand for applying high clamping forces without injury to the hand. The threads on shank 10 should
5 be spaced from handgrip 14 a distance corresponding to the thickness of the fingers of a normal operator's hand to avoid encounter of the fingers with the threads when grip 14 is tightly squeezed by the hand.

The outer end 15 of shank 10 should project from handgrip 14 to serve as a protection to the grip when resting the motor upon a dock, clamp down, as shown in Fig. 2.

Furthermore, the projecting end 15 of shank 10 serves to transmit the riveting blows to the shank or to support the shank solidly against blows employed in peening the extension 12 against the clamp head 11.

The handgrip 14 may have a series of spaced circumferential ribs 16 thereon to prevent slippage of the operator's hand when gripping the same. In the illustration the ribs 16 are spaced a distance generally a little less than the width of a finger so that the fingers effect a greater grip thereon.

The clamp constructed as described has been extensively employed in outboard motors and has been found to be more satisfactory than former clamps.

6 Various embodiments of the invention may be employed within the scope of the following claims.

I claim:

1. A manually operable screw clamp for outboard motors and the like employing a threaded shank having a cross member extending transversely therethrough near the outer end thereof to provide a hand grip for turning of the shank and wherein severe engine vibration tends to loosen the clamp unless highly tightened and tends to cause loosening and rattling of the cross member in the shank, comprising the threaded shank and cross member extending transversely therethrough, a clamp member having said shank threaded therethrough, a clamp head secured upon the end of said shank opposite said cross member, and an elastic highly resilient covering molded upon and fully embedding the cross member to retain the same in relation to the shank, said covering leaving the outer end of the shank exposed for transmission of riveting forces for securing said clamp head in place and for protecting the molded material when the outboard motor is laid clamp down upon a deck or the like; said covering being tightly bonded to the body of said shank and to said cross member to prevent rattling

of the latter in the shank under high vibration forces and yielding under high manual tightening forces applied thereto to permit a loose cross member to transmit the rotary tightening forces to the shank without rupture of the cover, and said covering presenting a yielding hand grip of substantial size making possible the application of substantially higher manual tightening forces without injury to the hand of the operator.

7 2. In combination, an outboard motor unit having an internal-combustion engine producing substantial vibration, a clamp bracket adapted to support said unit upon the transom of a boat and having an inverted U-shaped clamp body adapted to slip over the upper edge of the transom, at least one clamp screw carried by the forward leg of said U-shaped clamp body and comprising a shank threaded through said leg in a direction to effect confinement of the transom between the inner end of the shank and the rear leg of said clamp body, a metal rod extending transversely through the shank near its outer end to provide for manual application of turning forces to the shank, and a highly resilient covering embedding said transverse rod and the adjacent portions of said shank to provide an enlarged handgrip therefor, said covering yielding to compensate for looseness of said transverse rod in the shank and serving to resist vibratory rattle of the rod.

8 COMBINED OATH, POWER OF ATTORNEY, AND PETITION

Being duly sworn, I Elmer C. Kiekhaefer depose and say that I am a citizen of the United States residing at Cedarburg, County of Ozaukee, State of Wisconsin, that I have read the foregoing specification and claims and I verily believe I am the original, first, and sole inventor of the invention or discovery in Outboard Motor Clamp described and claimed therein; that I do not know and do not believe that this invention was ever known or used before my invention or discovery thereof, or patented or described in any printed publication in any country before my invention or discovery thereof, or more than one year prior to this application, or in public use or on sale in the United States for more than one year prior to this application; that this invention or discovery has not been patented in any country foreign to the United States on an application filed by me or my legal representatives or assigns more than twelve months before this application; and that no application for patent on this invention or discovery has been filed by me or any representatives or assigns in any country foreign to the United States, except as follows:

And I hereby appoint ANDRUS & SCEALES (Registration No. 16,106), of 735 North Water Street, Milwaukee, 2, Wisconsin, my attorneys, with full power of substitution and revocation, to prosecute application, to make alterations and amendments therein, to sign the drawings, to receive the patent and to transact all business in the Patent Office connected therewith.

Wherefore I pray that Letters Patent be granted to me for the invention or discovery described and claimed in the foregoing specification and claims, and I hereby subscribe my name to the foregoing specification and claims, oath, power of attorney, and this petition.

Inventor /s/ Elmer Carl Kiekhaefer
Address 141 South Washington Avenue
Cedarburg, Wisconsin

State of Wisconsin)
ss.
County of Ozaukee)

[JURAT]

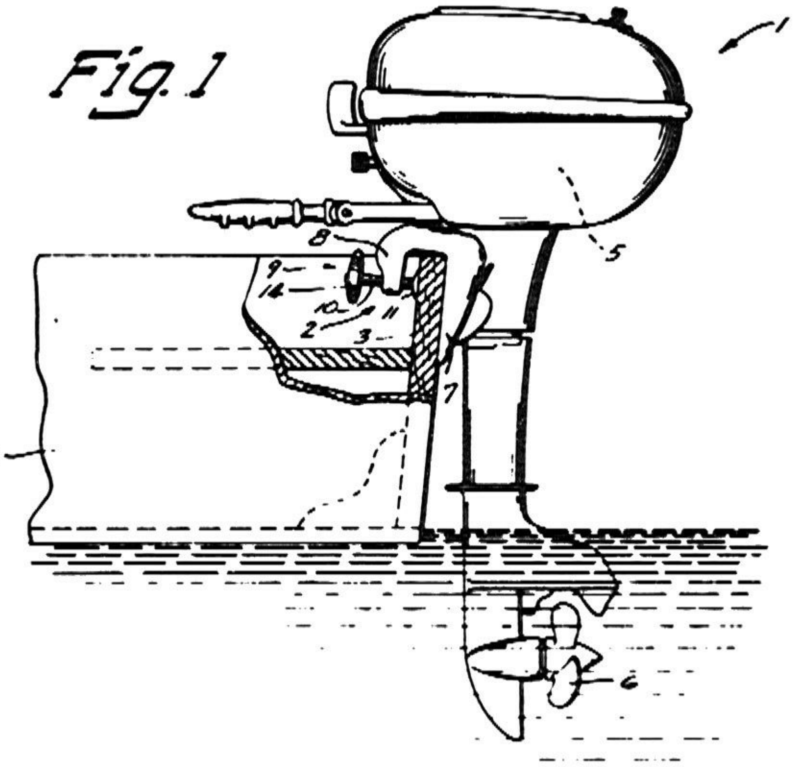
52

J.A. 55

226709

PRINT OF DRAWING AS ORIGINALLY FILED

Fig. 1



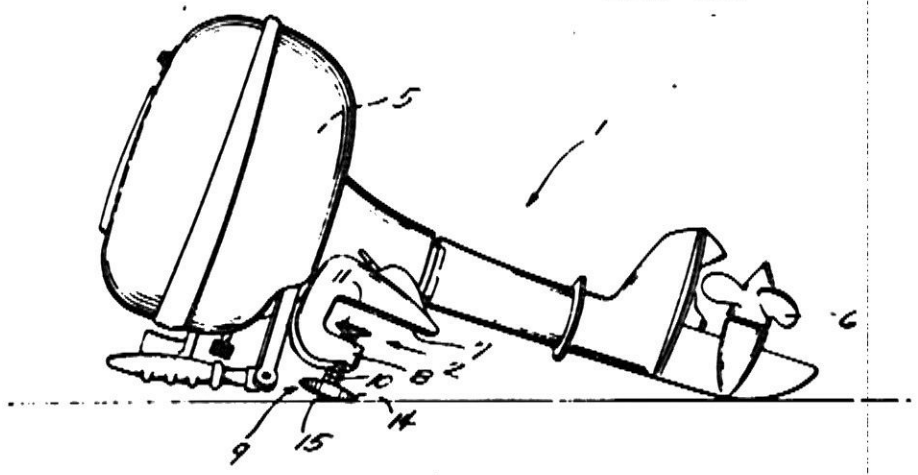


Fig. 2

INVENTOR.
Elmer C. Kiekhaefer
BY
Andrus & Sceales
Attorneys

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Fig. 3

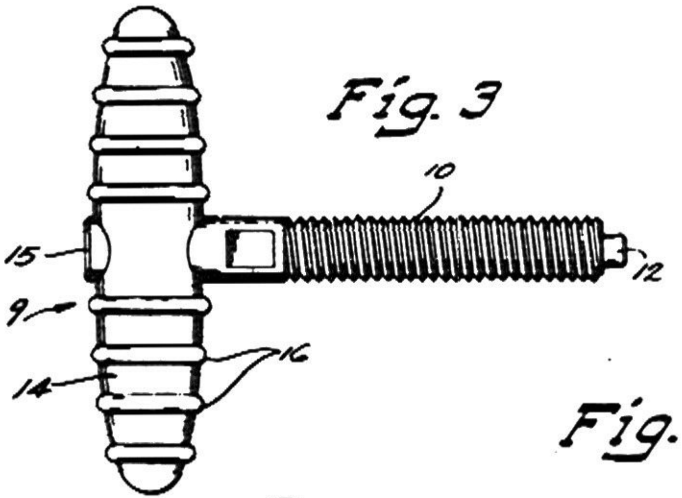


Fig. 6

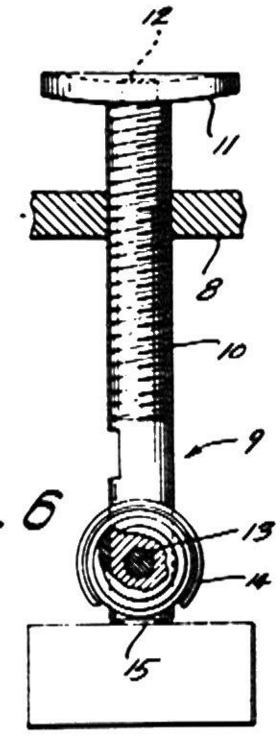


Fig. 4

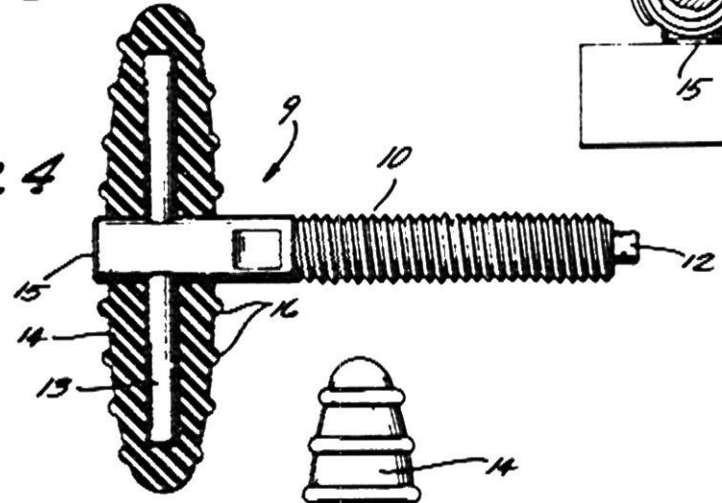
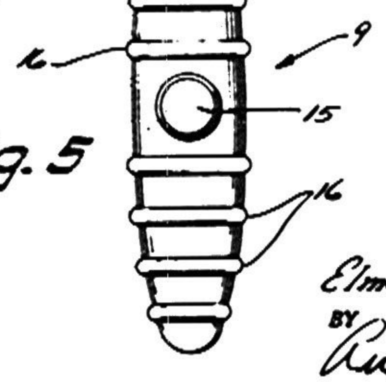


Fig. 5



INVENTOR
Elmer C. Kiekhaefer
BY
Andrus & Sceales
Attorneys

10

226709

11 [June 14, 1951]

IN THE UNITED STATES PATENT OFFICE
DIV. 52 Room_____

Application of)
)
ELMER C. KIEKHAEFER) OUTBOARD MOTOR CLAMP
)
Serial No. 226,709)
)
Filed May 16, 1951)

AMENDMENT

June 6, 1951

Hon. Commissioner of Patents
Washington 25, D. C.

Sir:

Kindly enter the following Amendment to the above identified application:

AMENDMENT TO CLAIMS

Add the following claims:

---3. In a device of the class described, a metal shank adapted to be manipulated manually, a metal cross member disposed transversely of said shank and extending therethrough, and an elastic covering molded upon and fully embedding said cross member to retain the same in relation to said shank, said elastic covering compensating for any looseness between the cross member and shank from assembly tolerances and preventing rattling and displacement of the cross member.

12 4. In a device of the class described, a metal shank adapted to be turned manually or otherwise manipulated and having a transverse bore therethrough, a metal cross member disposed transversely of said shank and extending through said bore, and an elastic material bonded to and at least partially covering said member and said shank to retain the same against other

than nominal relative displacement and prevent rattling in the event of any looseness between said shank and cross member.---

REMARKS

Added Claims 3 and 4 are identical to claims 23 and 24, respectively, of applicant's earlier application, Serial No. 772,343, filed September 5, 1947, for Elastic Hand Grip.

The claims have been added to assure applicant the benefit of the filing date of his earlier filed application.

Respectfully,

ANDRUS & SCEALES
Attorneys for ELMER C. KIEKHAEFER
By /s/ Elwin A. Andrus

---

13 DEPARTMENT OF COMMERCE
UNITED STATES PATENT OFFICE
[Mailed Feb. 21, 1952] WASHINGTON

John A. Marzall,
Commissioner of Patents.

Andrus and Sceales
735 North Water Street
Milwaukee 2, Wisconsin

Applicant: Elmer Carl Kiekhaefer
Ser. No. 226,709
Filed May 16, 1951
For OUTBOARD MOTOR CLAMP

References made of record:

Thomas	957,814	May 10, 1910	16-118 uxr
McDowell	1,216,244	Feb. 13, 1917	16-118 uxr
Duffield	1,629,449	May 17, 1927	287-53 H
Stedman	1,936,775	Nov. 28, 1933	18-59 R. N.
Morrell	2,116,707	May 10, 1938	292-348
Haller	2,455,578	Dec. 7, 1948	248-4
Kohler	2,470,439	May 17, 1949	248-4

Claims 1-4 appear in the application.

Claim 1 is rejected as being prolix. See ex parte Iagan 1911 C.D. 10; 162 O.G. 538.

Claim 1 is rejected further as containing a double inclusion of elements. The shank and cross member are recited more than once. See ex parte Duncan, Pritchard and Macauley 1906 C.D. 348.

Claim 2 is rejected as being drawn to an old combination of elements as shown by Kohler. Applicant's invention, if any, resides in the shank, cross member and elastic cover.

Claims 3 and 4 are rejected as failing to patentably distinguish over Morrell. Morrell's knobs 1 or 2 are the full patentable equivalent of those recited since they fully embed the cross member and prevent its displacement. No invention would be involved in making Morrell's knobs of rubber since rubber knobs are well known as
14 evidenced by Stedman and Thomas.

Claims 3 and 4 are rejected further on Haller in view of Thomas, Stedman or Duffield. Thomas, Stedman and Duffield show it to be old to embed a handle or cross member in rubber. In view of said showing it would merely be carrying forward an old idea to embed cross member 14 of Haller in an elastic material.

/s/ F. I. Whitney
Examiner.

---

15 [August 19, 1952]

AMENDMENT

Milwaukee, Wisconsin
August 12, 1952

Hon. Commissioner of Patents
Washington 25, D. C.

Sir:

In response to Office action dated February 21, 1952, the application is amended as follows:

AMENDMENT TO SPECIFICATION

Page 5, line 22, cancel the period (.) and add

---which were subject to breakage by over-tightening with replacement at the manufacturer's expense. The present clamps provide handles which cannot be tightened with wrenches and the like without damage to the covering so that such use of a wrench is generally discouraged or at least, if so 16 employed, damages the covering so that in the event of any breakage of the clamps, the improper tightening of the clamps can be shown by the evident damage to the covering.---

AMENDMENT TO CLAIMS

Claim 1, line 2, cancel "employing" and substitute therefor --- comprising ---

line 8, cancel "comprising the threaded shank and cross"

line 9, cancel "member extending transversely therethrough"

line 14, cancel "said covering leaving the"

Cancel lines 15, 16 and 17

line 18, cancel "laid clamp down upon a dock or the like,"

line 27, cancel the period (.) and add

---and being susceptible to damage by the use of other means for tighening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.---

17 Claim 2, line 1, cancel "combination,"

line 3, after the comma (,) and before "a" insert --- the combination of ---

line 17, cancel the period (.) and add ---and being susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening. ---

Cancel claims 3 and 4

REMARKS

The specification has been amended to explain the circumstances surrounding the development of the present invention and one of the reasons for its adoption. Claims 1 and 2 have been amended and claims 3 and 4 have been cancelled. Claim 1, as amended, avoids a double inclusion found by the Examiner and has been further amended to correspond to the amendment of the specification. Such amendment does not alter the structure of the disclosure and of the claims and should be found admissible.

18 Acknowledgement is made of an interview courteously granted applicant's attorney by the Primary and Assistant Examiners on March 24, 1952, at which the invention and art were fully discussed.

Claims 1 and 2, as amended, state the nature of the invention more fully and distinguish over the prior art on which the claims stand rejected.

The patent to Kohler shows the type of clamp which has been employed in the outboard motor industry for a long period of time and over which applicant's present clamp presents considerable patentable novelty and improvement.

The glass knobs of Morrell should be dismissed by the Examiner as not applicable, since no one would consider the use of glass to protect the shank either against rattling or mishandling or in such a vulnerable location with respect to the abuse of an outboard motor.

The claims as amended refer to the nature of the elastic covering which tends to prevent responsible persons from using a wrench or other tool on the clamp to tighten the same. The experience of outboard motor manufacturers in this regard has been unhappy due to the breakage resulting from over-tightening of the clamps and loss of the motor or at least requiring replacement of the clamp brackets with the belief that the original brackets were defective.

19 Since the adoption of the present clamp brackets, particularly the elastic covered turn screw handles thereof, the same construction has been adopted by leading outboard manufacturers for the advantages afforded and outlined above.

The patentable novelty of the invention should be apparent in view of the remote connection between the door handles of Morrell and the outboard motor clamps described and claimed by the applicant.

The claims are believed to define clearly the patentable invention presented by the applicant and the allowance of the claims is earnestly solicited.

Respectfully,
ANDRUS & SCEALES
Attorneys for Elmer C. Kiekhaefer
By /s/ Elwin A. Andrus

20 [April 7, 1953] Abbott-jp.

Andrus and Sceales
735 North Water St.
Milwaukee 2, Wisconsin

Applicant: Elmer Carl Kiekhaefer
Ser. No.: 226,709
Filed: May 16, 1951
For: Outboard Motor Clamp

Responsive to amendment filed August 16, 1952.

Claims 1 and 2 remain in this application.

Claims 1 and 2 are rejected as being unduly prolix. The state of the art is advanced, applicant's device is simple and it is not proper that applicant should be permitted to confuse wherein he considers the invention to lie by presenting claims which are unduly lengthened by reciting what is old in the art and statements of intended use. Ex parte Iagan 1911 C.D. 10; 162 O. G. 538.

Claims 1 and 2 are rejected further as being drawn to an old combination of elements. The patents to Haller and Kohler each disclose the combination of a clamp member, a threaded shank and a cross member on said shank to provide a hand grip. Applicant's improvement, if any, appears to lie in the hand grip member, per se, not in the combination claimed. The positive references to the unit, the transom, etc., would render claim 2 meaningless if omitted, therefore it is held to also include the motor and transom in the combination.

Claims 1 and 2 are rejected further as being unpatentable over either Kohler or Haller in view of Morrell and Stedman. The combination recited by the applicant is shown to be old in each of the primary references. The recitation of a specific handle is aggregative inasmuch as no mutual patentable interdependence

21 exists between the clamping means and the handle recited. The patent to Morrell shows it to be old to introduce a hand grip member molded over an element having a cross bar such as disclosed by either Kohler or Haller. The patent to Stedman discloses a hand grip member of molded rubber and anticipates that the molded rubber will be substituted for "metal, glass and various compositions" and that it may be used as a hand grip, pad, foot, bumper or as a stop for doors. No invention is seen in molding a rubber hand grip member on the cross bars of either Kohler or Haller in view of the teaching of the secondary references.

Since an issue has been reached, this action is made FINAL.

/s/ F. I. Whitney
Examiner.

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22 [October 7, 1953]

To the Commissioner of Patents:
Sir:

Applicant hereby appeals to the Board of Appeals from the decision of the principal examiner finally rejecting claims 1 and 2.

The appeal fee of $25.00 is attached hereto.

Respectfully submitted,
ANDRUS & SCEALES
Attorneys for Applicant
By /s/ Elwin A. Andrus

October 7, 1953

23 [December 7, 1953]

BRIEF ON BEHALF OF APPLICANT

This is an appeal from the Examiner's Final Rejection dated April 7, 1953, in the above-identified application.

The claims on appeal read as follows:

1. A manually operable screw clamp for outboard motors and the like comprising a threaded shank having a cross member extending transversely therethrough near the outer and thereof to provide a handgrip for turning of the shank and wherein severe engine vibration tends to loosen the clamp unless highly tightened and tends to cause a loosening and rattling of the cross member in the shank, a clamp member having said shank threaded therethrough, a clamp head secured upon the end of said shank opposite said cross member, and an elastic highly resilient covering molded upon and fully embedding the cross member to retain the same in relation to the shank, said covering being tightly bonded to the body of said shank and to said cross member to prevent rattling of the latter in the shank under high vibration forces and yielding under high manual tightening forces applied thereto to permit a loose cross member to transmit the rotary tightening forces to the shank without rupture of the cover, and said covering presenting a yielding hand grip of substantial size making possible the application of substantially higher manual tightening forces without injury to the hand of the operator and being susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.

24 2. In an outboard motor unit having an internal-combustion engine producing substantial vibration, the combination of a clamp bracket adapted to support said unit upon the transom of a boat and having an inverted U-shaped clamp body adapted to slip over the upper edge of the transom, at least one clamp screw carried by the forward leg of said U-shaped clamp body and comprising a shank threaded upon said leg in a direction to effect confinement of the transom between the inner end of the shank and the rear leg of said clamp body, a metal rod extending transversely through the shank near its outer end to provide for manual application of turning forces to the shank and a highly resilient covering embedding said transverse rod and the adjacent portions of said shank to provide an enlarged handgrip therefor, said covering yielding to compensate for looseness of said transverse rod in the shank and serving to resist vibratory rattle of the rod and being susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.

THE CLAIMS ARE NOT PROLIX

Citing ex parte Iagan, 1911 C. D. 10, the Examiner has rejected the claims as unduly prolix, although the Examiner has indicated that the state of the art is advanced. Applicant's device is relatively simple and as claimed (claim 1) includes (1) a threaded shank, (2) a cross-member, (3) a clamp member, (4) a clamp head and (5) an elastic covering molded over the cross-member.

The length of the claims arises from a rather full recitation of the structural and functional relationship of the several elements, which recitation lends meaning to the combination of elements.

It is noted, that the Commissioner in ex parte Iagan quotes the following from another decision:

> "It is scarcely necessary to say that no combination precisely similar is to be found in the Office. The fifteen elements here united were never united before, and probably never will be again. The applicant himself, in the next machine which he constructs, will doubtless omit one or more of them, and destroy his combination and avoid his own patent."

The present applicant's construction is in commercial use and may be found on thousands of outboard motors of a certain manufacture. No statement such as the above is applicable to the present case. The present case is not one of fifteen elements in such detail as to make infringement or repetitive use unlikely. Each element of the claim is essential to the solution of the problem facing applicant, and the recitations of inter-related function serves to clarify the invention.

The inventor-applicant is required by statute to clearly state wherein he considers his invention to lie. The claims are believed to be in clear and concise language as such. The length of the claim cannot, in that case, be a serious factor respecting the question of the clear and concise statement of the invention. If anything, the claims are made more clear by any supposed extra matter.

THE CLAIMS ARE NOT DRAWN TO A KNOWN COMBINATION OF ELEMENTS

The patents to Haller and Kohler do not include the full combination of elements of either claim 1 or claim 2 and specifically do not include the molded resilient covering. In considering whether or not applicant's improvement appears to lie in the handgrip member, per se, the Examiner's action wholly overlooks the fact that claim 1 is directed to the "hand grip member" would include (1) the shank, or a part thereof, (2) the cross-member, and (3) the molded covering. Claim 1 includes further only the clamp member.

26 THE CLAIMS ARE FURTHER IMPROPERLY REJECTED ON KOHLER OR HALLER IN VIEW OF MORRELL AND STEDMAN

Kohler and Haller are representative of the state of the art up to the present applicant's invention. The issue raised by the Examiner is whether or not the disclosures of Morrell and Stedman suggest molding a resilient covering around the cross-pin of Kohler or Haller. The issue, properly stated is whether or not Kohler or Haller suggest that a molded covering be added to the cross-pin of an outboard motor clamp screw as Morell suggests adding glass to a door-knob, or Thomas, cited, suggests adding rubber to a radiator cap, or Stedman suggests adding rubber to a drawer-pull.

Morrell merely states that "knob 2, of porcelain or the like, is then molded over the said end of the spindle, the outer end of the sleeve 4 and the pin so that the knob 2 and the sleeve 4 are permanently connected with said end of the spindle." (P. 1, col. 1, line 40 et seq.) It is not seen where the suggestion of Stedman in substituting rubber for glass pull-knobs would include the conception which would lead to applicant's device or some other on which the Examiner bases his rejection of the present inventor's claims.

Applicant has not devised a drawer pull-knob or a door-knob, or a radio-dial, or a switch handle, but a particular combination employing a specific handle for a particular purpose.

An outboard motor clamp must be tight or the motor will become loose and lost. But there is a limit to which the clamp may be tightened, not just because the clamp might be broken when the motor is being secured to the transom at the dock, but further because the
27 operation of the motor, as in the middle of the lake, adds rather than lessens the strain carried by the clamp and the likelihood of failure. The clamp must be tightened to within a given range of

tension which cannot be judged visually except with very special tools. The particular construction as defined by the claims provides a handle which can be grasped and tightened within well defined limits.

The improper use of tools is, in effect, prevented by the same resilient covering affording the manual grip. This means that overtightening, as with a wrench, is prevented and the clamp and motor protected against such hazards.

That is, a very definite patentable interdependence exists between the clamping means and the handle recited. The turning movement and limits of turning are not the same in any handle. In some cases, as in door-knobs, very slight turning effort is required and is limited by abutments which never are overloaded. In other devices, as in the filler cap of Thomas, the limits are reached by the axial movement of the threaded turning member.' In a drawer-knob, no turning is involved. None involve the requirements of an outboard motor clamp which is to be applied to transoms of different thicknesses and which must be tightened sufficiently but within limits.

The patent to Stedman shows that in a knob, a molded rubber
may be substituted for glass. Such is the "prior art" over which the
invention is presented. It should be noted that the Examiner in
effect holds that Morrell suggests molding glass on the cross-pins
28 of Haller and Kohler and then Stedman suggests changing the
glass to rubber. The suggestion or the idea that anyone would
provide an outboard motor clamp bracket with glass knobs in the
first place, will not be fully understood and the reference to Morrell
should be considered or dismissed accordingly.

Thus, combining only three references, the teaching of the prior art is already utterly confused.

None of the references suggests using one or the other construction or material for any particular consideration except as in Stedman. But Stedman is in no way concerned with applying any given turning tension or the like and particularly, Stedman suggests rubber because it can stand "hard usage without damage" (Page 1, col. 1, line 27). The patent to Stedman is thus clearly contrary in teaching and concept to that of the present invention and cannot be any part of a combination of references applied against the clear and concise statements of applicant's invention.

CONCLUSION

The rejection of claims 1 and 2 for prolixity does not take into consideration the nature of the invention which the inventor - applicant is obliged to distinctly point out.

The rejection of the claims as drawn to an old combination is not proper. All the elements of the claims do not appear in combination in any reference. The combination claimed is not one that would occur only once in the inventor's lifetime but will be found in a mass-produced commercial structure.

29 The rejection of the claims on references disclosing drawer and door-pull-knobs to be combined with an outboard motor reference is without reasonable basis.

A person having knowledge of numerous failures of outboard motor clamp brackets would not go to the prior art in door and drawer pulls for the means to prevent the same in a feasible manner. The utility of the present invention in terms of assuring the proper handling of the clamps cannot be overemphasized.

The action of the Examiner rejecting the claims should be reversed.

An oral hearing is requested.

Respectfully submitted,

ANDRUS & SCEALES
Attorneys for ELMER C. KIEKHAEFER

By /s/ Elwin A. Andrus

30 [Mailed February 12, 1954] Appeal No. 39,584

Attorney: Before the Board of Appeals

Andrus and Sceales
735 North Water Street
Milwaukee 2, Wisconsin

EXAMINER'S REPLY TO BRIEF

This is an appeal from the final rejection of claims 1 and 2. Claims 1 and 2 remain in this application. No claims are allowed.

A correct copy of claims 1 and 2 appear on pages 1 and 2 of applicant's brief.

Claim 1, line 9 in the brief has been corrected by changing "upon" to through.

The references of record relied upon are:

Stedman	1,936,775	Oct. 18, 1929
Morrell	2,119,707	May 10, 1938
Haller	2,455,578	Dec. 7, 1948
Kohler	2,470,439	May 17, 1949

The alleged invention relates to a clamp member (8), a shank (10) threaded therethrough, a clamp head (11) on one end of said shank, a cross member (13) extending transversely through the shank and a resilient covering (14) molded on said cross member.

31 The patent to Haller discloses a clamp member (8), a shank (9), threaded therethrough, a clamp head (11) on one end of said shank, and a cross member (14) extended transversely through the shank.

The patent to Kohler discloses a clamp member, a shank threaded therethrough, a clamp head (9) on one end of said shank and a cross member extended transversely through the shank.

The patent to Morrell discloses a shank (31), a cross member (6) extended transversely through the shank and a covering (1) molded on said cross member.

The patent to Stedman discloses a shank (27) and a resilient covering (12) molded on said shank and extending transversely thereof.

Claims 1 and 2, as copied in the brief, are thirty (30) and twenty-
four (24) lines, respectively, in length. The sole structure in either
claim not found in Kohler or Haller, is defined substantially as "an
elastic highly resilient covering molded upon and fully embedding the
cross member." It is believed that where the recitation of structure
is for the most part merely an inclusion of elements found to be con-
ventional in the prior art and where more than half of the claim is
devoted to statements of function and intended use, method of making
the article and the alleged improved performance resulting from the
use of the article, that the applicant is attempting to make the claims
perform the function of the specification and is confusing wherein he
considers his invention to lie thereby failing to particularly point out
and distinctly claim the subject matter which he regards as his inven-
32 tion (35 U.S.C. 112), and by unduly lengthening the claims comes
within the doctrine of Ex parte Iagan, 1911 C.D. 10. The claims were
accordingly rejected as being unduly prolix.

Claims 1 and 2 recite substantially the same combination of a clamp member, a shank threaded therethrough, a cross member acting as a hand grip extending transversely of the shank and a resilient covering molded on said cross member. Claims 2 also includes the boat transom and motor. The patents to Kohler and Haller each show the combination of a clamping member, threaded shank and a handle means to be old. Handles have attained a separate status in the art (class 16, subclass 118), and no new and unobvious result is seen to flow from making a change in the handle element of the combination. Therefore, the claims appear to recite more than the applicant invented since he did no more than make a change in the handle portion. Lincoln Engineering Co. v. Stewart-Warner, 1938 C.D. 809; 409 O.G. 3. In view of the foregoing, claims 1 and 2 were rejected further as being drawn to an old combination of elements.

Claims 1 and 2 were rejected still further as being unpatentable over either Kohler or Haller in view of Morrell and Stedman. As previously pointed out, the patents to Kohler and Haller each disclose all of the structure in the claims except the resilient molded cover on the cross member.

33 The patent to Morrell discloses a shank portion (3), a cross member (6) and a molded hand grip portion (1). The recitation that the molded portion is resilient does not appear to patentably distinguish over Morrell since the fact that resilient materials such as rubber can be molded is of common knowledge and no new or unobvious result would appear to flow from substituting a resilient material for that disclosed by Morrell. However, Stedman shows it to be old to use a molded resilient material for a handgrip and no invention would appear to attach to the substitution of a resilient material for that used at (1) in Morrell in view of the teaching of Stedman. Furthermore, it does not appear that the introduction of a cross member into the resilient hand grip of Stedman would be inventive in view of the showing of such an expedient by Morrell.

Therefore, it was held that the substitution of a handle which was unpatentable, per se, for that disclosed by either Kohler or Haller was devoid of invention.

Applicant has contended that the fact that the resilient element would be damaged or destroyed by the use of a tool such as a wrench lends the color of patentability to the claims since such a property would prevent overtightening of the clamp. The property set forth appears to be inherent in any resilient plastic material such as rubber.

It is pointed out that the porcelain knob of Morrell would also be damaged or destroyed by the application of excessive force to a tool and that the cross members of both Haller and Kohler are of smaller
34 diameter than the other clamp elements whereby they would probably be damaged or destroyed by the application of excessive force before damage to the clamp would result.

In view of the foregoing, it is contended that the rejection of claims 1 and 2 as being unduly prolix; being directed to an old combination of elements and as being unpatentable over either Kohler or

Haller, taken in view of Morrell and Stedman, is proper.

Respectfully submitted,
/s/ F. I. Whitney
Examiner, Division 52.

F.L. Abbott/jp.

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35 [March 4, 1954]

REPLY BRIEF ON BEHALF OF APPLICANT

The issues before the Board of Appeals are well defined by the Examiner and include the charge that the claims are unduly prolix.

Applicant respectfully points out that a fifty-six line claim to six apertures in a ring appears on page 71 of the Official Gazette, Vol. 679, No. 1, dated February 2, 1954; and that a sixty-four line claim to a one-piece platen appears on pages 388 and 389 of the Official Gazette, Vol. 679, No. 2, dated February 9, 1954.

No purpose is intended in noting this information other than to show that patent claims are not subject to standards of linear measure as the Examiner infers, and that the statutory requirement of "particularly pointing out and distinctly claiming" is more and not less fully met with statements of function and intended use.

The "undue" prolixity of which the claims are accused is a relative matter and the applicant is obliged to suggest that the standard, if any, may have changed since ex-parte Iagan, 1911 CD 10.

36 The rejection of the claims as directed to an old combination of elements is believed unwarranted since such a rejection necessarily requires a rejection on a single reference which the Examiner has not undertaken.

A weakness in the position taken by the Examiner may be found evidenced in the following statement on page 4 of the Examiner's brief: "The recitation that the molded portion is resilient does not appear to patentably distinguish over Morrell since the fact that resilient materials such as rubber can be molded is of common knowledge and no new or unobvious result would appear to flow from substituting a resilient material for that disclosed by Morrell." This is an arbitrary, "closed-mind" statement which will never br proven by anyone.

Stedman teaches the substitution the Examiner refers to and the results expected to flow therefrom viz., the shank of the drawer pull is tightened between the head of the bolt and the face of the drawer and the resilience of the rubber maintains a tight fit. There the advantage is found entirely in the element substituted.

In applicant's claimed invention the advantage of the rubber "substitution" is found in the combination of an entirely different structure therewith, namely, the clamp member.

Furthermore, the "substitution" on which the Examiner bases his rejection is that of the rubber of Stedman for the glass of Morrell
37 which he assumes would be found on the cross-pin of the outboard motor of Kohler or Haller. Thus, before accomplishing the "substitution" one must accept the argument that the Morrell disclosure suggests the use of glass everywhere and anywhere, and specifically on an outboard motor. No explanation of this phenomenon is offered by the Examiner.

It is submitted that no combination of references provides the clamp member with any given material for which the "substitution" of the molded rubber can be made. Applicant submits that the rejection should be reversed.

Respectfully submitted,

ANDRUS & SCEALES
Attorneys for ELMER C. KIEKHAEFER

By /s/ Elwin A. Andrus

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38 UNITED STATES PATENT OFFICE
WASHINGTON

NOTICE OF HEARING April 1, 1954

The case of Elmer Carl Kiekhaefer

Appeal No.: 395-84

Serial No.: 226,709

will be heard by the Board of Appeals on the 17th day of February, 1955.

The hearings will commence at 9:30 A. M. and as soon as the argument in one case is concluded, the succeeding case will be taken up.

The time allowed for argument is thirty minutes.

By special leave, obtained before the argument is commenced, the time may be extended.

Very truly yours,
/s/ Robert C. Watson
Commissioner of Patents

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39 [Mailed March 29, 1955]

Appeal No. 395-84

Hearing: February 17, 1955

IN THE UNITED STATES PATENT OFFICE

BEFORE THE BOARD OF APPEALS

Ex parte Elmer Carl Kiekhaefer

- - -

Application for Patent filed May 16, 1951, Serial No. 226,709. Outboard Motor Clamp.

Andrus & Sceales for appellant.

This is an appeal from the final rejection of claims 1 and 2 which are all of the claims now in the case.

Claim 1 is representative and reads as follows:

1. A manually operable screw clamp for outboard motors and the like comprising a threaded shank having a cross member extending transversely therethrough near the outer end thereof to provide a hand grip for turning of the shank and wherein severe engine vibration tends to loosen the clamp unless highly tightened and tends to cause loosening and rattling of the cross member in the shank, a clamp member

having said shank threaded therethrough, a clamp head secured upon the end of said shank opposite said cross member, and an elastic highly resilient covering molded upon and fully embedding the cross member to retain the same in relation to the shank, said covering being tightly bonded to the body of said shank and to said cross member to prevent rattling of the latter in the shank under high vibration forces and yielding under high manual tightening forces applied thereto to permit a loose cross member to transmit the rotary tightening forces to the shank without rupture of the cover, and said covering presenting a yielding hand grip of substantial size making possible the application of substantially higher manual tightening forces without injury to the hand of the operator and being susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening.

References relied upon by the Examiner are:

Stedman	1,936,775	Nov. 28, 1933
Morrell	2,116,707	May 10, 1938
Haller	2,455,578	Dec. 7, 1948
Kohler	2,470,439	May 17, 1949

References cited by the Board of Appeals are:

Ravenshaw (Br)	14,025	Oct. 17, 1891
Rockwell	507,594	Oct. 31, 1893
Gullborg	1,365,985	Jan. 18, 1921

This application relates to an outboard motor clamp and particularly to the clamp screws thereof which are adapted to be manually turned and tightened for securing the motor to the transom of the boat. Appellant states that in the past such clamps have presented problems due to the tendency of the clamping screws to rattle and then loosen. Appellant's clamp includes a conventional threaded shank 10 which has a transverse bore at its outer end for receiving a rod 13 which provides a hand grip for the operator's hand. This rod may have a loose or a driving fit with the shank. Appellant states that in order to prevent rattling he provides a resilient rubber hand grip 14 which embeds the rod 13 and the adjacent portions of the shank 10.

The appealed claims have been rejected as being unduly prolix. The Examiner points out that claims 1 and 2, as copied in the brief, are 30 and 24 lines, respectively, and that the sole structure not found in either Kohler or Haller is defined as an elastic highly resilient cover molded upon and fully embedding the cross member and that the 41 rest of the claims is devoted to statements of function and intended use as well as the alleged properties and improved performance resulting from the use of the elastic embedding member. It is the Examiner's position that appellant is attempting to make the claims perform the function of the specification and that they are confusing as to where appellant considers his invention to lie, thereby failing to particularly point out and distinctly claim the subject matter as required by 35 U. S. C. 112, paragraph 2.

Appellant points out that his device is relatively simple and that the claims include (1) a threaded shank, (2) a cross member, (3) a clamp member, (4) a clamp head and (5) an elastic covering molded over the cross member. Appellant contends that the claims are in clear and concise language and that the length of the claims cannot in that case be a serious factor respecting the question of the clear and concise statement of the invention.

As pointed out by appellant, claim 1 enumerates five relatively simple elements. These elements are included in the first 15 lines of claim 1. The remaining 15 lines merely set forth the desired properties, functions, advantages and results which are obtained by appellant due to the use of the one new element not shown in the references, that is, the elastic covering molded over the cross member.

We agree with the Examiner that most of the subject matter in the last 15 lines of claim 1 should be incorporated in the specification and not in the claim and that the incorporation of this subject matter in the claim renders it somewhat confusing in that it does not clearly

42 point out and distinctly claim that which appellant regards as his invention. The Examiner's rejection of claim 1 as failing to particularly point out and distinctly claim the invention is sustained.

As noted above, claim 2 as copied in the brief consists of 24 lines and the last 8 lines are devoted to the properties, functions and results which appellant obtains by use of the resilient molded covering for the transverse rod. Some of the statements included in the last 8 lines could be better relegated to the specification. However, taken as a whole, we do not believe that claim 2 is sufficiently prolix and confusing as to warrant a rejection on that ground. The Examiner's rejection of claim 2 as being prolix and confusing is not sustained.

Claims 1 and 2 were further rejected as being drawn to an old combination of a clamp member, a shank threaded therethrough, a cross member acting as a hand grip extending transversely of the shank and a resilient covering molded on the cross member. The Examiner points out that the patents to Kohler and Haller each disclose the combination of a clamping member, a threaded shank and a handle extending through the shank to be old. The Examiner points out that handles have attained a separate status in the art and are classified in class 16, subclass 118, and that no new and unobvious result is seen to flow from making a change in the handle element of the combination.

Appellant contends that the patents to Haller and Kohler do not include the full combination of elements set forth in claims 1 and 2 in that they do not specifically include the molded resilient covering for the transverse rod.

43 It is not seen wherein appellant's specific form of handle produces any new and unobvious result with the clamp as a whole. The remaining elements in the claims perform their function in the same manner as heretofore and there appears to be no new coaction between appellant's specific form of hand grip and the remaining elements of the clamp. The patent to Gullborg discloses that handles comprising a shank and a rod extending through an opening therein have become

separate objects of invention. The Examiner's rejection of claims 1 and 2 as being drawn to an old combination of elements as disclosed by Kohler and Haller is sustained.

Claims 1 and 2 were further rejected as being unpatentable over Kohler or Haller in view of Morrell and Stedman. Kohler and Haller each disclose an outboard motor clamp including a C-clamp, a threaded shank and a hand grip extending transversely of the shank. Morrell discloses a doorknob having a shank portion 4, a cross member 6 passing therethrough, and a molded hand-grip portion 1 which embeds the cross member 6 and part of the shank portion. Stedman discloses the use of rubber for drawer pulls and feet for beds, tables and chairs.

Gullborg discloses a method of making a handle which includes providing a shank portion 5 with a transverse hole 6 at one end thereof and a transverse pin passing through the hole 6. Gullborg die casts a suitable metal enclosure 10 about the end of the shank and the rod 7, so as to embed these portions of the handle and shank and prevent them from moving relative to each other. Gullborg states that by this method he is able to produce a relatively inexpensive handle structure since
44 comparatively little machining is necessary. In other words, the transverse rod 7 does not have to have a close machine fit with the shank 5.

The British patent discloses in Fig. 3 a two-piece, resilient hand-grip for use with a T-shaped handle bar.

Rockwell discloses in Fig. 5 a shank or spindle 2 having a member extending transversely through an opening in one end thereof and an insulating member 4 embedding the transverse member as well as part of the shank or spindle.

The Examiner points out that Morrell discloses a shank portion 3, a cross member 6 and a molded hand-grip portion 1 and it is his position that the recitation that the molded portion is resilient does not patentably distinguish over Morrell since the fact that resilient materials, such as rubber, can be molded is of common knowledge and no new or unobvious result flows from substituting a resilient material for that disclosed by Morrell and that this is especially true in view of Stedman who discloses the use of a hand grip made from resilient material. In view of the above, it is the Examiner's position that the substitution of a handle which was unpatentable per se for that disclosed by either Haller or Kohler would be devoid of invention.

The concept of securing the transverse cross member of a handle in place by embedding it as well as part of the shank in a material which mutually locks the cross member and the shank together is clearly disclosed to be old in Gullborg. Therefore, there would be no invention in carrying Gullborg's teaching over into Haller or Kohler and this position is fortified by the disclosures of Morrell and Rockwell. The use of resilient material for hand grips is widely known in many fields such as on bicycle handle bars, vacuum cleaner handles, lawn mower handles and on many other devices. This being so, rubber hand grips can be used in connection with any hand grip without the exercise of invention. It is, therefore, our opinion that it would not require invention in view of Gullborg, Morrell or Rockwell to embed the transverse rod and the adjacent portion of the shank of either Haller or Kohler in a resilient rubber covering in order to retain the transverse member in position relative to the shank and at the same time provide a resilient hand grip.

After careful consideration of appellant's arguments, we agree with the Examiner that the appealed claims do not represent a patentable advance over the prior art.

Any reliance on Gullborg, Rockwell and the British patent to Ravenshaw in our decision is made under the provision of Rule 196 (b).

The decision of the Examiner is affirmed.

/s/ L. P. McCann
Examiner-in-Chief

/s/ B. H. Carpenter
Examiner-in-Chief

/s/ (Illegible)
Examiner-in-Chief
(Acting)

BOARD
OF
APPEALS

March 29, 1955

Andrus & Sceales,
735 North Water St.,
Milwaukee 2, Wis.

46 NOTICE OF CIVIL ACTION UNDER 35 U.S.C. 145

A civil action under 35 U.S.C. 145, entitled Elmer C. Kiekhaefer v. Robert C. Watson, Commissioner of Patents, Civil Action No. 2352-55, involving this application was filed on June 21, 1955, in the United States District Court for the District of Columbia.

/s/ E. L. Reynolds
Solicitor

OPINION OF THE COURT

63 THE COURT: The Court is of the opinion that it does not constitute invention to put a rubber or plastic coating around a handle. The Board of Appeals of the Patent Office made the following statement in this case on this point with which the Court agrees: "The use of resilient material for hand grips is widely known in many fields, such as on bicycle handle bars, vacuum cleaner handles, lawn mower handles, and on many other devices. This being so, rubber hand grips can be used in connection with any hand grip without the exercise of invention."

There is no doubt that the plaintiff has put on the market a better handle than was used heretofore in connection with outboard motors. That in itself, however, does not justify the issuance of a patent. The Court is of the opinion that the improvement made by the plaintiff is a product of mechanical skill rather than of the inventive faculty and therefore does not entitle him to a patent.

The public policy involved in this principle of law is very important, for if the plaintiff were to get a patent on his invention, he would have a monopoly on the manufacture of handles covered with rubber or plastic or other similar resilient materials in connection with outboard motors for a period of seventeen years and would be able to exclude others from manufacturing similar articles. Obviously, the patent law was not intended to create monopolies of that kind but
64 only monopolies in respect to products of the inventive faculty. Otherwise, the patent laws instead of encouraging the progress of the arts would impede and interfere with them.

The Court will render judgment for the defendant.

Counsel may submit proposed findings of fact and conclusions of law and a judgment.

The Court wishes to thank counsel on both sides for their very helpful presentation of this matter.

MR. ANDRUS: Thank you, Your Honor.

MR. ROEMING: Thank you, Your Honor.

(Thereupon the trial was concluded.)

72 ## FINDINGS OF FACT

[Filed March 21, 1957]

1. This is a civil action brought under 35 U.S.C. 145, in which the plaintiff, Elmer C. Kiekhaefer, sought to have the Court authorize the issuance of a patent for an alleged invention as specified in claims 1 and 2 of his application for patent, Serial No. 226,709. In that application no claims were allowed by the Patent Office.

2. The application disclosure and the claims before the Court relate to an outboard-motor-clamp involving a structural unit including a threaded shank, a cross-member extending transversely through the shank, and a handgrip of a resilient material molded about the shank and cross-member.

3. Each of the patents to Haller No. 2,455,578 and Kohler No. 2,470,439 discloses all the outboard-motor-clamp structure positively recited in plaintiff's application claims 1 and 2 except the molded handgrip of resilient material.

4. The patent to Morrell No. 2,116,707 discloses a door-knob
73 comprising a shank, a cross-member extending transversely through the shank, and a mass of porcelain or the like molded over the shank and cross-member to permanently connect them without the use of a screw.

5. The patent to Gullborg No. 1,365,985 discloses a handle comprising a shank, a cross-member extending transversely through the shank, and a mass of suitable metal molded or die-cast over the shank and cross-member completely to embed them and mutually to lock them and to prevent them from moving relatively to each other.

6. The patent to Rockwell No. 507,594 discloses in Fig. 5 a valve-spindle having no screw-threads or nuts and comprising a shank, a cross-member extending transversely through the shank, and a head molded over the shank and cross-member, the head consisting of a fibrous-material, such as asbestos, thoroughly incorporated with a binder, such as a gum similar to dammar or shellac.

7. The British patent to Ravenshaw No. 14,025, A.D. 1891, discloses a T-handle comprising a shank, a cross-member therethrough, and rubber handle elements surrounding the shank and cross-member.

8. The patent to Stedman No. 1,936,775 discloses a drawer knob comprising a shank and a mass of rubber molded on said shank.

9. Except for the molded handgrip of resilient material, all the
outboard-motor-clamp structure disclosed in plaintiff's application was
74 known in the art and in public use before plaintiff made his im-
provement.

10. Plaintiff's disclosed improvement consists of a handgrip of resilient material molded about the shank and cross-member of the prior art.

11. Plaintiff's rubber-covered handle is a better handle than that previously on the market in outboard-motor-clamps.

12. Judicial notice is taken that resilient material for handgrips is widely known in many fields such as on bicycle handle bars, vacuum cleaner handles, lawn mower handles, and on many other devices.

13. It does not constitute invention to place rubber around a handle.

14. Plaintiff's improvement is the product of mechanical skill rather than of the inventive faculty.

15. Claims 1 and 2 do not define invention over structures known in this country and structures also used in public in this country prior to plaintiff's improvement.

16. No error is found in the affirmance by the Board of Appeals of the examiner's holding that claim 1 is unduly prolix and therefore fails particularly to point out and distinctly claim the novel substance as is required by 35 U.S.C. 112.

17. No error is found in the affirmance by the Board of Appeals
of the examiner's holding that claims 1 and 2 are unpatentable as im-
75 properly drawn to Haller's or Kohler's old combination in an
outboard-motor-unit of a clamp member, a threaded shank, and a

handle means.

CONCLUSIONS OF LAW

1. Plaintiff is not entitled to a patent containing either of claims 1 and 2 of his application Serial No. 226,709.

2. The complaint should be dismissed.

/s/ Alexander Holtzoff
Judge

March 21, 1957

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76 [Filed March 21, 1957]

JUDGMENT

This action came on to be heard at this term, and thereupon upon consideration thereof, it is this 21st day of March, 1957

ADJUDGED that the complaint be and it is hereby dismissed, with costs against the plaintiff.

/s/ Alexander Holtzoff
Judge

APPROVED AS TO FORM:

Attorney for Plaintiff.

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77 [Filed May 16, 1957]

NOTICE OF APPEAL TO THE UNITED STATES COURT OF APPEALS

Notice is hereby given that ELMER C. KIEKHAEFER, Plaintiff above named, hereby appeals to the United States Court of Appeals for the District of Columbia from the judgment entered in this action on March 21, 1957, and from the whole thereof.

Dated this 10th day of May 1957.

Respectfully,

ANDRUS & SCEALES
Attorneys for Plaintiff - Appellant

By /s/ Elwin A. Andrus
735 North Water Street
Milwaukee 2, Wisconsin

Of Counsel:

/s/ Solon B. Kemon
1331 G Street, N.W.
Washington 5, D. C.

CONTENTS OF JOINT APPENDIX

1. Bill of Complaint of Elmer C. Kiekhaefer dated May 26, 1955.
2. Answer to the Complaint of Robert C. Watson, Commissioner of Patents, dated June 28, 1955.
3. Reporter's typewritten stenographic transcript of proceedings at trial in open court on March 14, 1957.
4. Plaintiff's exhibit 1, filed in support of Plaintiff's position at trial on March 14, 1957.
5. Defendant's exhibits A, B, C, D, E, F, and G filed in support of Defendant's position at trial on March 14, 1957.
6. Opinion of the Court presented at the conclusion of the trial on March 14, 1957.
7. Findings of Fact and Conclusions of Law, dated March 21, 1957.
8. Judgment of the Court, dated March 21, 1957.
9. This Contents of Joint Appendix.

By /s/ Solon B. Kemon
1331 G Street, N. W.
Washington, D. C.
Attorney for Appellant

Of Counsel:

Elwin A. Andrus
Andrus, Sceales & Starke
735 N. Water Street
Milwaukee 2, Wisconsin

Patented Dec. 7, 1948

2,455,578

UNITED STATES PATENT OFFICE

2,455,578

OUTBOARD MOTOR CLAMP

Pearl M. Haller, Bay City, Mich.

Application March 27, 1947, Serial No. 737,445

4 Claims. (Cl. 248—4)

This invention relates to clamps designed primarily for use in securing or clamping out-board motors to their supports, the primary object of the invention being to provide a clamp which will securely hold an outboard motor in position against becoming loosened or displaced, due to a movement of the clamping screw, caused by vibrations of the motor.

Another object of the invention is to provide a clamp of this character which may be readily and easily manipulated, to permit the motor forming a part thereof, to be positioned or removed with facility.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is an elevational view of a clamp constructed in accordance with the invention, the clamp being shown partly in section.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a modified form of clamp.

Referring to the drawing in detail, the reference character 5 indicates the transom of a boat to which the clamp is secured.

The clamp includes the body portion 6, which provides a jaw 7 and an arm 8 spaced from the jaw 7, the arm 8 being formed with a threaded bore to accommodate the screw 9. The screw 9 is formed with a head 10 that fits in a socket of the adjustable clamp 11 carried at the inner end of the screw, the clamp cooperating with the jaw 7 in clamping the transom 5. The head 10 and socket in clamp 9 are so constructed that a binding action is set up between the head 10 and socket to further insure against rotation of the screw 9.

The outer end of the threaded bore formed in the arm 8, is counter-sunk to accommodate the tapered end 12 of the winged jamb-nut 13, which when positioned, will set up a binding action between the threads of the screw 9 and threaded bore of the arm 8, to hold the screw 9 against rotation.

The outer end of the screw 9 is provided with a cross bar 14, whereby the screw may be readily operated.

Supported within bearings formed under the

body portion 6, is a shaft 15, on which the locking finger 16 is fixedly mounted, the finger being normally held in its inactive or unlocked position by means of the spring 17, which is shown as extending around the shaft 15, the intermediate portion thereof bearing against the finger.

A gear 18 is formed with internal threads and is secured on the inner threaded end of the screw 9, the gear 18 adapted to accommodate one end of the locking finger 16 to prevent rotary movement of the gear 18 and screw 9, after it has been set.

The arm 19 provides the supporting arm between the clamp and motor, not shown, the arm 19 being pivotally mounted on the shaft 8' disposed at the upper end of the arm 8.

Secured to the shaft 8' directly under the arm 19, is a finger 16' which is disposed at an approximately 45° angle with respect to the finger 16, the finger 16' being engaged by the arm 8 when locked, to move the shaft 8' and finger 16, the finger 16 moving to engage between teeth of the gear 18. While it is customary to use two of these clamps and screws 9 with each engine support, I have only shown one of such clamps, the other clamp being mounted in parallel relation with the clamp shown, and the corresponding arm 19 of the adjacent clamp structure is mounted on the shaft 8'.

From the foregoing it will be seen that due to the construction shown and described, I have provided a clamp for clamping out-board motors to boats, the clamping mechanism being locked against displacement due to loosening of the clamps by vibrations of the motor when in operation.

When the motor is not in operation, it is swung upwardly in the usual manner, whereupon the locking finger 16 becomes disengaged with the gear 18, to permit of the operation of the screw 9 to remove the device.

In the form of the invention as shown by Figure 3 of the drawing, a clamp is shown as comprising an arm 20 adapted to fit over the upper edge of the boat transom, the arm being formed with a threaded opening, which is counter-sunk to receive the tapered end of the nut 21, through which the screw 22 operates, the screw carrying the clamp 23 at its forward end.

As the screw is operated to cause the clamp 23 to grip the transom, the nut 21 will be operated to secure the screw against reverse movement to release the clamp.

Having thus described the invention, what is claimed is:

1. A device for removably clamping a motor to a boat, comprising a U-shaped main clamping member including an arm having a threaded opening, said main clamping member adapted to fit over a beam of a boat, a screw operating through the threaded opening of the arm, a clamp mounted on the inner end of the screw and adapted to clamp the beam of the boat, a pivoted arm mounted on the main clamping member to which the motor is secured, a gear secured to the screw, and a finger operated by the movement of the motor supporting arm, adapted to engage the gear, preventing rotary movement of the screw.

2. A device for removably clamping a motor to a boat, comprising a main clamping member including an arm having a threaded opening, a clamp screw operating through the threaded opening, a clamp swiveled on the inner end of the clamping member and cooperating with the clamping member in clamping a boat transom, a gear secured to the screw, an arm pivotally connected with the main clamping member and to which the motor is secured, and a locking finger movable with the pivoted arm and adapted to engage the gear, preventing rotary movement of the gear when the arm is in its lowermost position, thereby restricting rotation of the gear and clamp screw.

3. A device for removably clamping a motor to a boat, comprising a U-shaped clamping member including an arm having a threaded opening,

a clamp screw operating through the threaded opening, a clamp swiveled on the inner end of the clamp screw and adapted to cooperate with the clamp in securing the clamp to the transom of a boat, a gear secured to the clamp screw, a pivoted arm secured to the clamping member and operating above the gear, a pivoted finger operated by said arm and adapted to move into engagement with the teeth of the gear, preventing rotation of the gear and clamp screw.

4. A device for removably clamping a motor to a boat, comprising a clamping member including an arm having a threaded opening, a clamp screw operating through the threaded opening of the arm, a clamp swiveled to one end of the clamp screw and adapted to be moved into engagement with a boat transom over which the clamp is positioned, securing the clamp to the boat transom, an arm pivotally connected with the clamp and to which the motor is attached, and means operated by the pivoted arm for securing the screw clamp against rotation.

PEARL M. HALLER.

REFERENCES CITED

The following references are of record in the file of this patent:

FOREIGN PATENTS

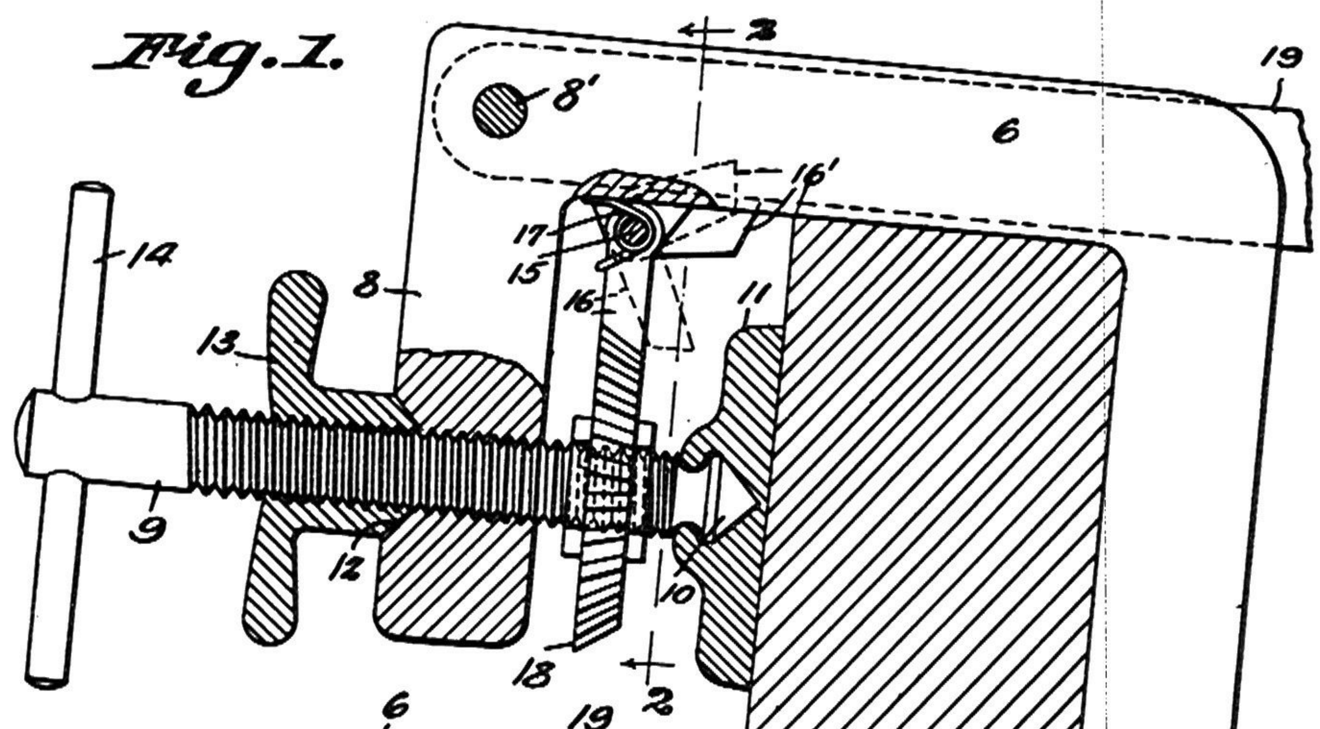
Number	Country	Date
22,278	Great Britain ------	Nov. 1, 1905

Dec. 7, 1948. P. M. HALLER 2,455,578

OUTBOARD MOTOR CLAMP

Filed March 27, 1947

Fig.1.



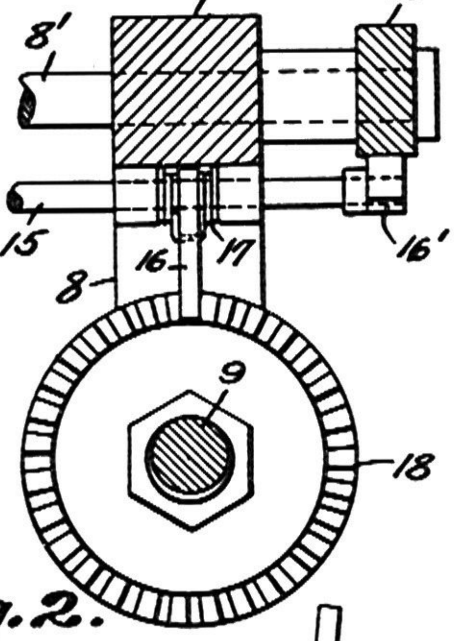


Fig.2.

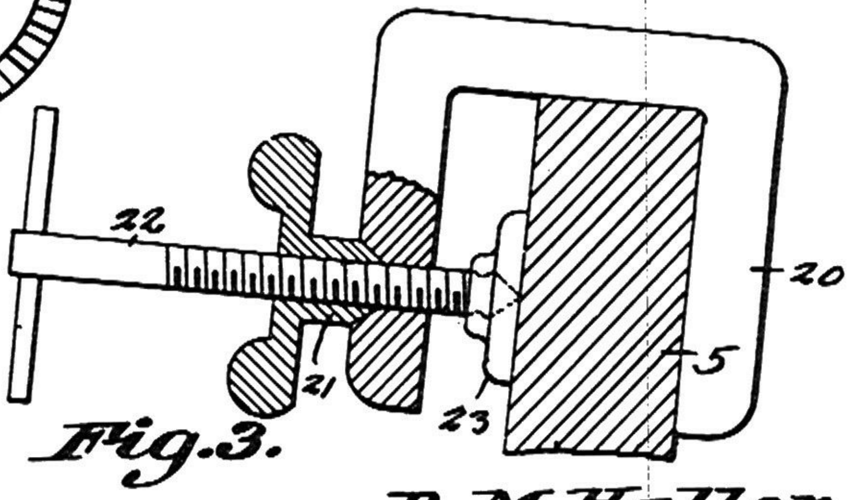


Fig.3.

P. M. Haller
INVENTOR

BY C.A.Snow & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,116,707

SCREWLESS DOORKNOB

Melvin Hill Morrell, Harrison, Ark.

Application April 27, 1937, Serial No. 139,287

1 Claim. (Cl. 292—348)

The object of my invention is to make a doorknob which cannot be jerked apart or disassembled, while in use. It is a further objective of my invention to make a knob, which can be locked in position without the use of a screw, and that will remain firmly locked, when in use.

It is still a further objective of my invention to make a doorknob which cannot be disassembled from the outer side of the door.

The above and various other objects and advantages of this invention will in part be described and in part be understood from the following detailed description of the preferred embodiment, the same being illustrated in the accompanying drawings wherein:—

Figure 1 is a view of the spindle with the knobs attached thereto.

Figure 2 is an edge view of the spindle.

Figure 3 is a view looking toward the inner end of that knob which is permanently connected with the spindle, with the spindle attached to said knob.

Figure 4 is a view looking toward the inner end of the opposite knob.

Figure 5 is a sectional view taken on the line 5—5 of Figure 1.

Figure 6 is a sectional view taken on the line 6—6 of Figure 1.

Figure 7 is a perspective view of the locking plate.

Figure 8 is a perspective view of the key or block.

Similar numerals refer to similar parts throughout the several views.

In these drawings the spindle is shown at 5 and said spindle has a hole adjacent one end through which passes the pin 6, after a sleeve 4 has been placed on said end of the spindle, the said sleeve also having a hole therein through which the pin 6 passes. The knob 2, of porcelain or the like, is then molded over the said end of the spindle, the outer end of the sleeve 4 and the pin so that the knob 2 and the sleeve 4 are permanently connected with said end of the spindle.

A second sleeve 3 has a hole in its outer end for receiving a pin 6 and the knob 1 is molded over the outer end of the sleeve 3 and over the pin, as shown in Figure 5. The other end of the spindle 5 fits in a socket 12 of the sleeve 3 and intermediate this end of the spindle a slot 7 is formed in each one of three edges of the spindle, the slots being out of alignment as shown in Figure 2. The slot 7 shown in the upper edge of the spindle in Figure 2 is in an intermediate position with another slot on the forward edge of the spindle of Figure 2 placed farthest from the left hand end of the spindle and with a third slot 7 in that side edge of the spindle of Figure 2 opposite the edge in view, is closest to said left hand end of the spindle. The spindle is placed in the socket 12 of the sleeve 3 in a position to have one of the slots 7 in alignment with a hole 10 in the sleeve 3 so that a rectangular-shaped block or key 8 can be passed into the hole 10 to engage the slot. By having the three slots the knob 1 and sleeve 3 can be adjusted on the spindle to suit different thicknesses of doors on which the knob assembly is used. A recess 11 is formed in the sleeve 3 at the outer end of the hole 10 and is of larger area than the hole. The recess is formed with undercut end walls and a locking plate 9 is adapted to be placed in the recess to hold the key or block 8 in position. This plate 9 is of spring metal and of substantially oval shape with rounded ends to engage the undercut end walls of the recess and at one side it is formed with a concavity 13 for receiving a point of an ice pick or other tool which is passed under the plate so as to bend the same to permit the ends of the plate to enter the undercut end walls of the recess. In placing the plate in position one end of the plate is placed in one undercut end wall and the ice pick is placed partly under the central part of the plate and then the plate is bent over the ice pick so that its other end can be pushed under the undercut wall at the other end of the recess. Then when the ice pick is withdrawn the plate will straighten out so that its ends will firmly engage the undercut end walls of the recess. As before stated this will lock the key 8 in position and thus firmly fasten the knob 1 and its sleeve 3 to the spindle. When it is desired to remove the knob assembly an ice pick or the like is forced under the plate at the recess 13 so as to bend the same upwardly and thus remove it out of the recess and then the key 8 can be removed in any suitable manner, such as by turning the knob assembly to place the hole 10 in which the key is located in a position at the underside of the sleeve so that the key will drop out of the hole 10 by gravity.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been described in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

I claim:—

A doorknob assembly of the class described comprising a spindle, a sleeve for receiving one end of the spindle, a pin passing through the outer end of the sleeve, a knob formed around the outer end of said sleeve and the pin, said spindle having a slot in each of three edges thereof in that part which enters the sleeve, said slots being out of alignment, said sleeve having a hole therein, a block adapted to be placed in the hole to engage one of the slots to fasten the spindle in said sleeve, and a spring locking plate for holding the block in the hole, said plate having rounded ends and the sleeve having a recess surrounding the outer end of the hole having undercut end walls for receiving the rounded ends of the plate.

MELVIN HILL MORRELL.

May 10, 1938. **M. H. MORRELL** 2,116,707

SCREWLESS DOORKNOB

Filed April 27, 1937 2 Sheets-Sheet 1

Fig. 1.

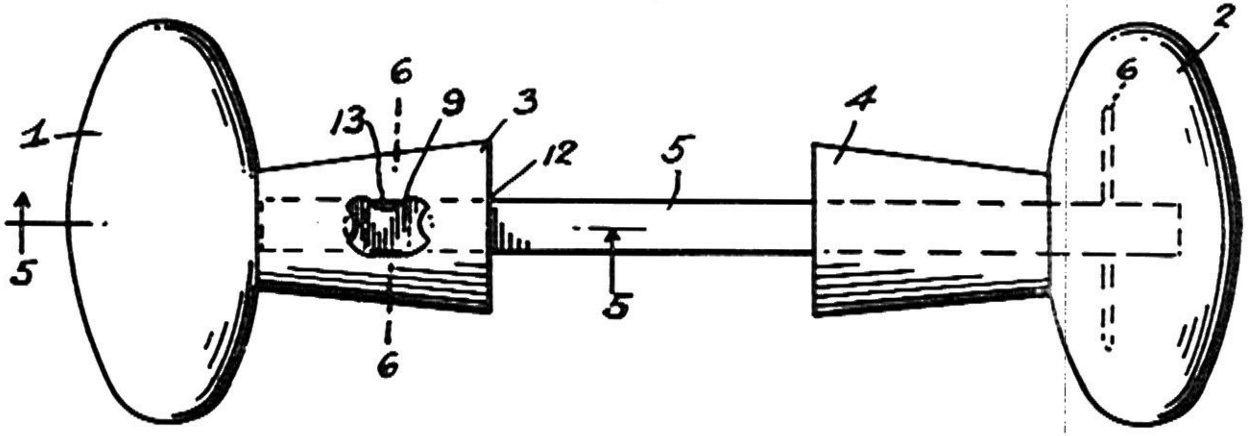


Fig. 2.

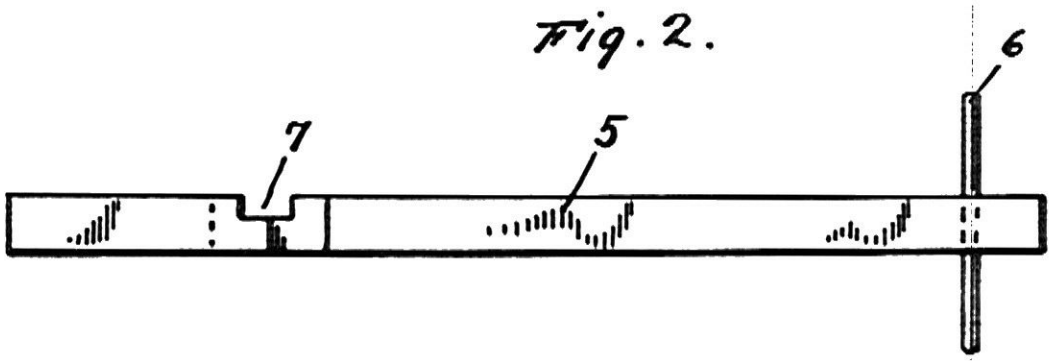


Fig. 4.

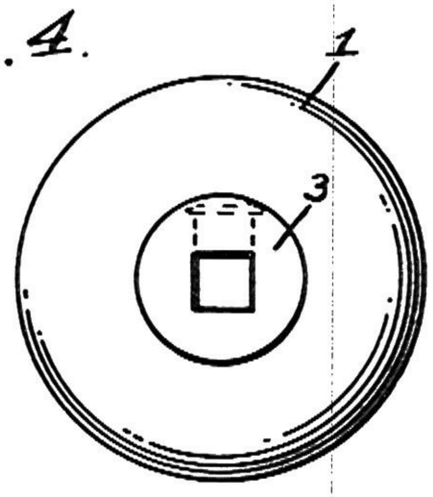
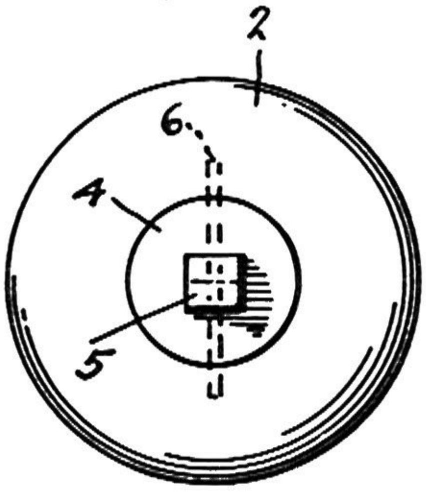


Fig. 3.



Inventor

M. H. Morrell

By Clarence A. O'Brien
Hyman Berman

Attorneys

May 10, 1938. M. H. MORRELL 2,116,707

SCREWLESS DOORKNOB

Filed April 27, 1937 2 Sheets-Sheet 2

Fig. 5.

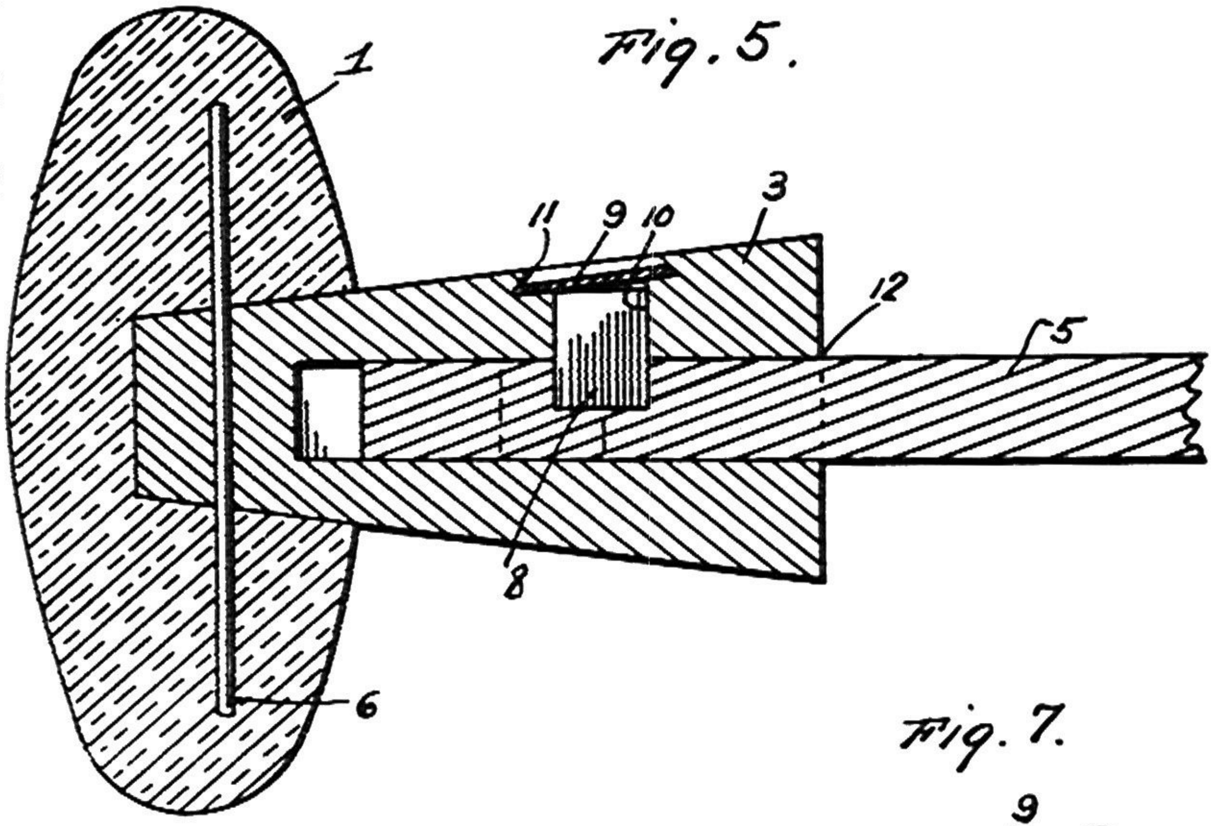


Fig. 7.

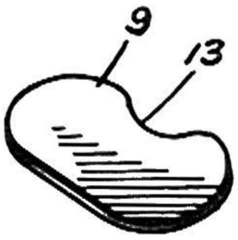


Fig. 6

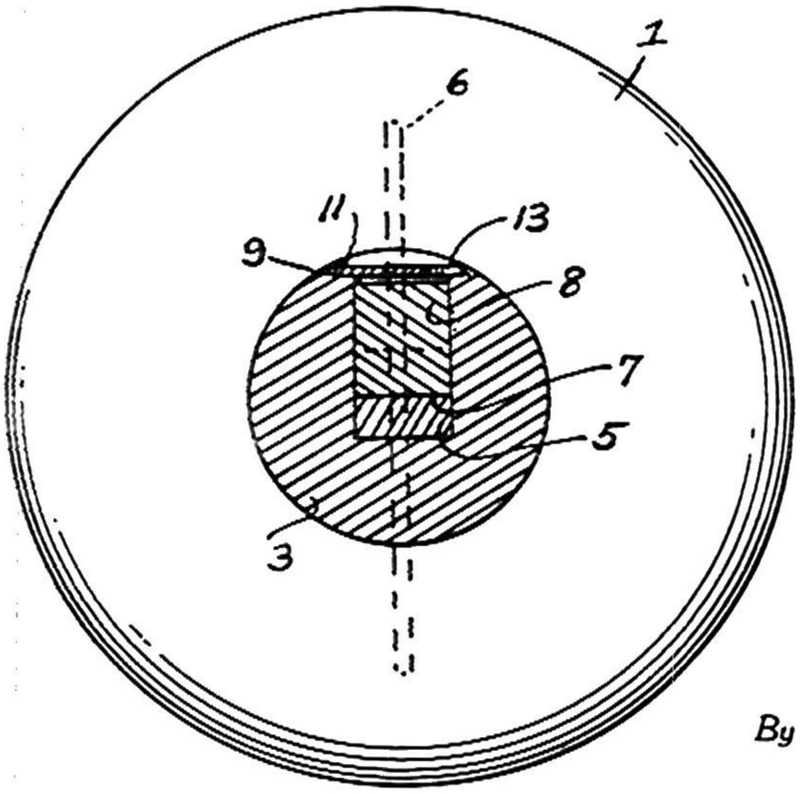
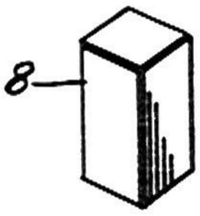


Fig. 8.



Inventor

M. H. Morrell

By Clarence A. O'Brien
Hyman Berman

Attorneys

UNITED STATES PATENT OFFICE.

FREDERICK C. ROCKWELL, OF HARTFORD, CONNECTICUT.

VALVE-SPINDLE.

SPECIFICATION forming part of Letters Patent No. 507,594, dated October 31, 1893.

Application filed October 18, 1892. Serial No. 449,214. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK C. ROCKWELL, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Valve-Spindles, of which the following is a full, clear, and exact specification.

The invention relates more particularly to the spindles of gates, valves and cocks provided for systems that conduct steam, hot water or other heated fluids, the object being to provide for such articles a cheap, ornamental and durable spindle having a heat non-conducting head permanently secured thereto, so constructed that there are no metallic parts exposed upon the top by which the hand can be burned by accidental contact, and having no parts that can unscrew or work loose so that the spindle cannot be turned to operate the valve, cock or gate.

Referring to the accompanying drawings: Figure 1 is a side view of a valve provided with the improvement. Fig. 2 is a top view of the head of the spindle. Fig. 3 is a view of the gate and spindle with the upper end cut in section. Fig. 4 is a horizontal section of the head of the spindle; and Fig. 5 is a section of the upper end of a modified form of spindle.

In the views 1 indicates the body of a valve of any common form and construction, having the usual spindle 2. This spindle in the interior is connected with a gate, disk or plug 3 which stops the opening through the valve and is subjected to the heating effects of the fluid which passes through the system, and after passing through a stuffing box to the exterior terminates in a head 4 by which it may be turned to open or close the passage. The outer end of this spindle is preferably enlarged and provided with outwardly projecting inclined prongs 5 that are embedded out of sight in the interior of the material of the head. This head is formed of a fibrous material, as asbestus, which is heat non-conducting and tenacious, thoroughly incorporated with a binder, as a gum similar to dammar or shellac, to which a filler is sometimes added in the shape of comminuted or powdered mica, soapstone or feldspar. In the process of manufacture this material is thoroughly mixed and placed in dies with the end 6 of the spindle and subjected to heat and pressure until it is very hard. If desired of course the end of the spindle may be an independent piece with an opening to receive a part of the spindle, and with a perforation for a small pin to hold the parts together, as illustrated by the dotted lines in Figs. 3 and 4. Or the pin through the end of the spindle may be molded directly in the center of the head. This construction produces a practically integral spindle which is simple and cheap, having a metallic shank which can be subjected to the heat of the passing fluids without deterioration, and a heat non-conducting head which will not break nor change under the influence of the heat conducted by the metallic shank of the spindle. The upper surface of the head is perfectly smooth and cannot in any manner injure or scratch the hand when used; neither is there any projecting or exposed metallic part to burn the hand when the head is grasped; nor is there any part which can unscrew so as to allow the handle to turn loose and wear out or crack and become useless, as with the ordinary spindle in which, as it is well known, the nut which holds the handle to the end of the spindle frequently unscrews allowing the handle to turn freely, as well as being a conductor of heat from the interior so that the hand is often burned by contact with the nut or end of the spindle when turning the valve. A spindle thus formed has a firm, strong and durable head which will not become hot, as will the heads of spindles which are formed entirely of metal in order to be strong enough for the uses to which they are to be put. It is cheap, as there are no screw-threads or nuts to be cut and put together; and it may be formed very ornamental or provided with any device indicating the character of the valve, or the name of the maker; while the heat of the spindle so affects the composition of the head that it holds more closely to the spindle instead of shrinking away, as does the wood or paper handles sometimes used.

I claim as my invention—

A valve attachment comprising a metallic valve spindle having an enlarged outer end and a hand wheel or head of compressed fibrous non-conducting material entirely embedding said outer end of the spindle and having a smooth or unbroken upper surface of non-conducting material, substantially as specified.

FREDERICK C. ROCKWELL.

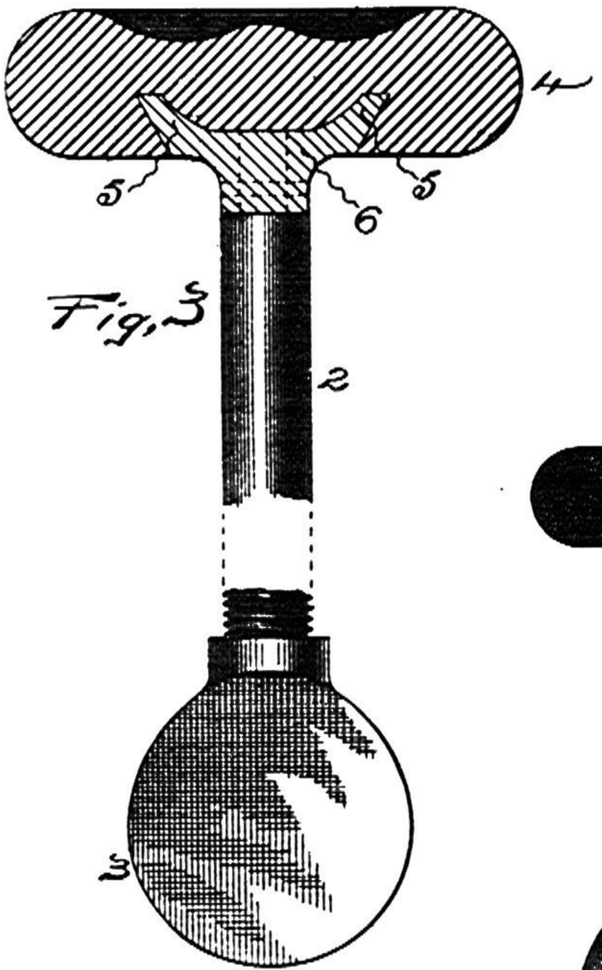
Witnesses:
HARRY R. WILLIAMS,
CLARENCE E. BUCKLAND.

(No Model.)

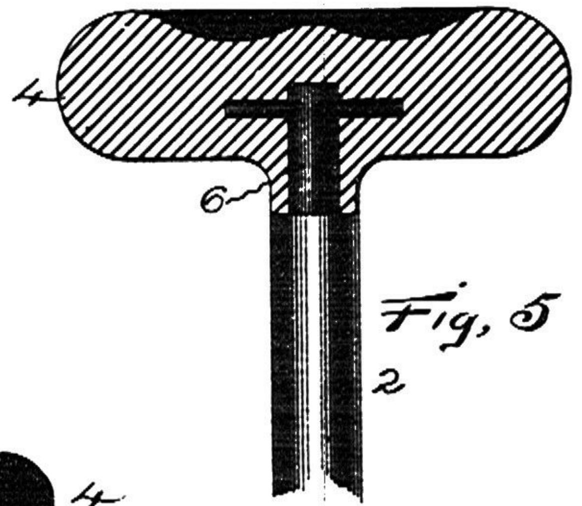
F. C. ROCKWELL.

VALVE SPINDLE.

No. 507,594. Patented Oct. 31, 1893.

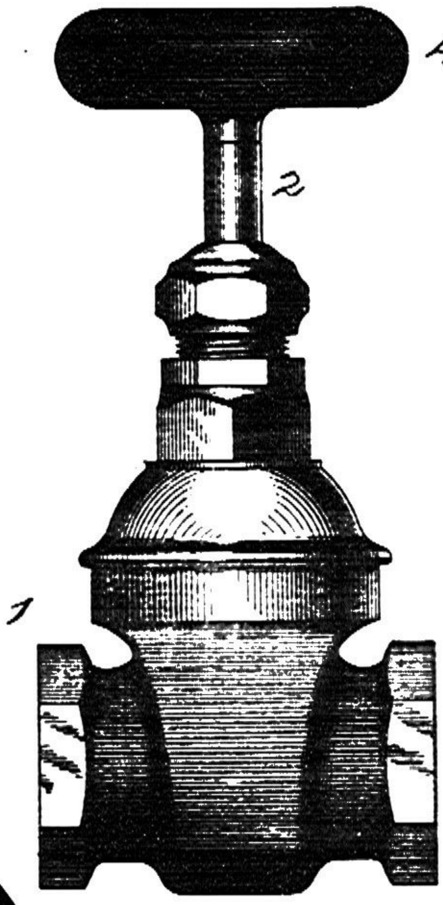


Fig, 3

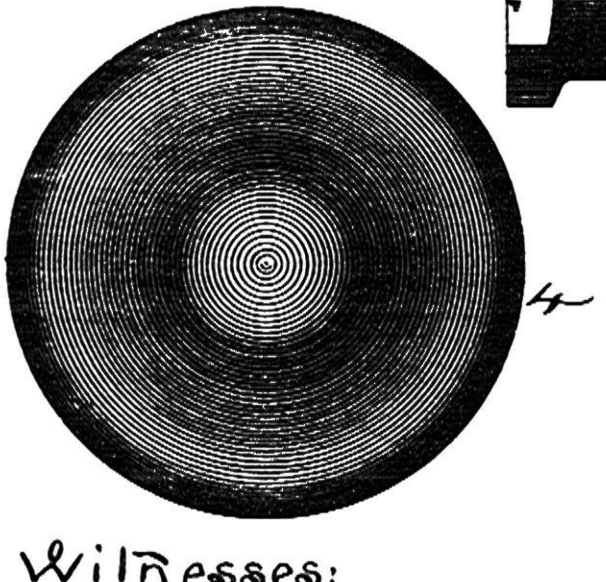


Fig, 5

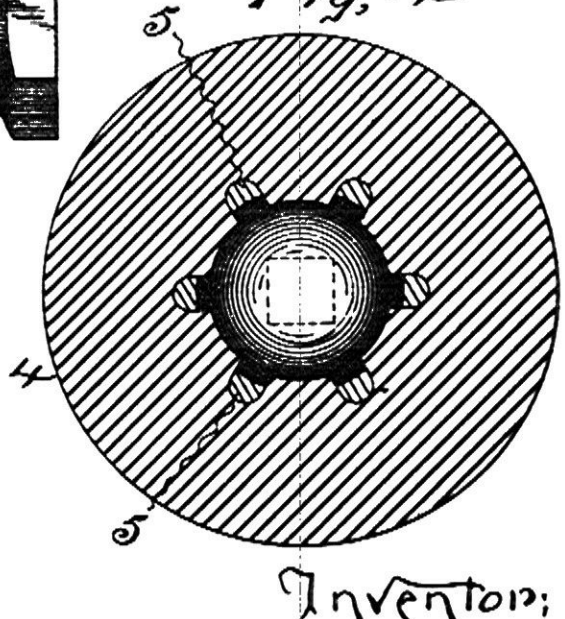
Fig, 1



Fig, 2



Fig, 4



Witnesses:

Clarence E. Buckland.

P. A. Phelps.

Inventor:

Frederick C. Rockwell

by

Harry R. Williams

atty.

Patented Nov. 28, 1933 1,936,775

UNITED STATES PATENT OFFICE

1,936,775

RUBBER KNOB AND METHOD OF MAKING

James H. Stedman, Braintree, Mass.

Application October 18, 1929. Serial No. 400,518

6 Claims. (Cl. 18—59)

My invention relates to knobs for household use and more particularly to knobs for furniture such as pulls for drawers and feet for beds, tables and chairs to facilitate moving without marring floors. The present application is a continuation in part and as to all common subject matter of my copending application Serial No. 273,682.

Heretofore knobs for the purposes named have been made from metal, glass and various compositions all of which have certain disadvantages familiar to householders, for example rapid tarnishing or rusting in the case of metal, and liability to fracture or chipping in the case of glass and compositions. The hard materials heretofore generally employed are liable, after a time, to loosen on the screw threads which secure them to the face of the drawer, door or other support due to the inability of the material to obtain a sufficient frictional grip on the support.

The principal object of my invention is to manufacture a knob, or the like, from material that overcomes the disadvantages heretofore encountered and especially that of loosening on the support during use. Accordingly my knob is molded from rubber in such a manner that the outer or grasping portion is of a hardness to withstand hard usage without damage, and the inner support-contacting portion is of relatively softer rubber enabling it to yield and spread circumferentially to obtain a tight grip on the support under axial anchoring compression.

A further object of my invention is to produce a satisfactory knob from material that may be worked in a great number of colors and combinations of colors so as to match or blend with surrounding furnishings or interior decorative effects. By the use of colored rubber, either plain or variegated colors, this object may be successfully achieved. Furthermore the surface of the harder, grasping portion of the knob may be separately decorated or ornamented with an inlay in any desired shape or form. This inlay is preferably formed of pre-vulcanized rubber that provides an extremely hard wear surface on the exposed knob end. In this form, the knob may be used to advantage as a pad or foot for furniture legs or as a stop or bumper for doors.

To the accomplishment of these objects and such others as may hereinafter appear from the following description, as will readily be understood by those skilled in the art, my invention comprises the features of construction and process of manufacture hereinafter described and then particularly pointed out in the appended claims.

The preferred forms of my invention, in order to attain the objects above referred to, are illustrated in the accompanying drawings, in which:

Figure 1 is a sectional view of the preferred form of the knob before being applied to a support;

Fig. 2 is a similar view showing the same knob as it appears when fastened to a support;

Fig. 3 illustrates, in section, the assembly of the rubber pieces preparatory to molding;

Fig. 4 illustrates a closed mold, in section, with the rubber pieces flowed to shape by the molding pressure;

Fig. 5 shows, in section, an assemblage of rubber pieces for producing an ornamental or a harder exposed end on the knob;

Fig. 6 is a sectional view of a knob made from the pieces shown in Fig. 5 and from a mold that produced a flat-ended knob;

Figs. 7 and 8 are sectional views, of a modified form of the knob in which the anchoring screw is embedded in the rubber, showing the knob before and then after tightening to the support;

Figs. 9 and 10 illustrate, in section, one manner of assembling the rubber pieces to produce the knob shown in Fig. 7, and these pieces within a closed mold;

Fig. 11 is a sectional view of the constituent rubber pieces to produce the knob shown in Fig. 7 but modified by the provision of a pre-vulcanized rubber insert; and

Fig. 12 is a view, in section, molded from the parts shown in Fig. 11.

In the embodiment of the invention illustrated in Figs. 1 to 4, inclusive, a knob of conventional shape is illustrated provided with a central threaded bore 10 extending axially through the shank and into the body of the knob, this threaded bore being adapted to receive a fastening-screw 11 which, more advantageously, should have a greater pitch diameter than that of the bore 10 to prevent rotation of the knob thereon. The enlarged outer or grasping portion 12 of the knob is made of relatively hard or less resilient rubber, while the inner portion or shank 13 of the knob (i. e., the portion which bears against the face of the drawer) is made of relatively soft rubber, so as to adapt it to yield when the fastening-screw is tightened up. On tightening the screw, the soft-rubber shank 13 is axially compressed and its contacting end is drawn against the outer face of the drawer by yielding pressure, thus serving to exert a constant pull that will keep the fastening-screw tight, with the end of the shank pressed tightly against the drawer face, thus serving as a lock-nut. It is desirable that the end-face of the shank 13 shall be more or less concaved, so that, when the nut is tightened, this concaved face will flatten out against the surface of the drawer, thereby providing for expansion of the contacting end without appreciably distorting the shank.

The making of the outer, grasping part of the knob of harder rubber provides a firm grasping-member and at the same time insures a firm anchorage for the holding-screw.

In the process of manufacture I provide the shank-molding portion 14 (Fig. 3) of a two-part mold with a screw 15 removably mounted centrally of the mold cavity. About this mold screw I assemble a plurality of pieces of uncured rubber, this having been found satisfactory in practice for making the simpler form of knob, of such proportions that when the head-molding portion 16 of the two-part mold is closed upon them they will flow sufficiently to completely fill the mold, as shown by Fig. 4. The first piece 17, that will form the inner or support-contacting portion of the knob, is of relatively soft rubber, while the second and third pieces 18 and 19 are of relatively hard rubber. The pieces 17 and 18 may be perforated disks or cylinders to slip easily over the screw threads or they may be in the form of a strip wrapped about the screw shank.

After shaping the pieces 17, 18, 19 to the desired form and also vulcanizing, see Fig. 4, the screw 15 is withdrawn and a knob is produced having an axial threaded bore and a relatively soft contacting end as shown in Figs. 1 and 2.

Referring now to the feature of the knob that is shown in Figs. 5 and 6 the process of production is the same as just described except that on top of the rubber piece 19 I lay an additional piece 20 of pre-vulcanized rubber. In the molding operation the pre-vulcanized piece 20 becomes inlaid in the piece 19, which is softer because uncured thus providing an extremely hard wear surface after vulcanization has taken place. If desired the cavity of the head-molding portion of the two-part mold may be shaped to provide a flat exposed knob end adapted for use on chair and table legs. Preferably, when the knob is used on chairs and tables, the piece 20 is cut from rubber stock, such as rubber flooring, that has been subjected during the vulcanizing process to an excessive pressure so that it has wearing qualities far in excess of the remainder of the rubber in the knob.

The modified form of the knob shown in Figs. 7 to 10 has the same characteristic features of a relatively harder grasping portion 12 and a relatively softer support-contacting portion 13 and is produced by a process similar in principle to that which produces the knob of Figs. 1 to 4. The distinction resides in having the knob provided with an anchoring screw as an integral part thereof forming what I call the "male" type of knob as distinguished from the centrally threaded or "female" type heretofore described.

In producing the male type knob the mold part 21 has no central screw but merely a screw receiving hole 22 (Fig. 10). The mold part 23 is unchanged. The constituent parts 24, 25, 26 (Fig. 9) forming the grasping portion of the knob are mounted upon and around the head, which may be of any desired shape, of a screw 27. The piece 28 of softer uncured rubber, forming the shank of the knob, is placed on the shank of the screw below the harder pieces about the head of the screw. The assemblage is then placed within the cavity of the mold part 21, the uncovered portion of the screw being received in the hole 22. After molding and vulcanizing the head of the screw will be embedded in the harder portion of the knob, to thus securely and permanently anchor it therein.

The male type may be produced with the extremely hard wear surface as described for the female type by adding a piece 29 of pre-vulcanized rubber (see Figs. 11 and 12) outside the piece which lies across the screwhead.

To secure this male type to the front of a drawer or other support, a nut 30 (Figs. 1 and 2) is threaded on the projecting end of the screw 27. On tightening this nut the softer inner or contacting portion 13 of the knob is spread slightly and yieldingly held against the support serving as a lock-nut as heretofore described.

It has been found in practice that a material having all the desired characteristics for the body portion of the knob is rubber reinforced with cotton fibre. Reinforced rubber color stocks may be mixed as taught by my Letters Patent of the United States No. 1,482,952, dated February 5, 1924 to produce a variegated surface in such tints, hues or markings as may be required, or an inlay of a single color, or white or black in any outline desired may be employed to gain a desired ornamental effect.

While it is preferred to employ the specific construction and arrangement of parts shown and described it will be understood that this construction is not essential except so far as specified in the claims, and may be changed or modified without departing from the broader features of the invention.

What is claimed as new, is:—

1. A rubber knob having its enlarged outer or grasping portion of relatively harder rubber and its smaller support-contacting portion of a relatively softer rubber, and provided with an axial bore extending through the softer rubber and threaded substantially into the harder rubber for receiving an anchoring screw, whereby said support-contacting portion will yield under axial anchoring compression and spread circumferentially against the surface to be contacted.

2. A knob consisting of rubber having the headed end of its fastening or anchoring screw embedded therein, the enlarged portion of the knob being of relatively harder rubber and the support-contacting portion of the shank being of relatively softer rubber to yield when a nut on the screw is tightened, said screw having one end secured in the relatively harder rubber portion and extending outwardly through the softer rubber shank portion.

3. A knob consisting of rubber having the headed end of its fastening or anchoring screw embedded therein, the enlarged portion of the knob being of relatively harder rubber and the support-contacting portion of the shank being of relatively softer rubber to yield when a nut on the screw is tightened, the end face of said shank being concaved, said screw having one end secured in the relatively harder rubber portion and extending outwardly through the softer rubber shank portion.

4. A knob consisting of rubber having the headed end of its fastening or anchoring screw embedded therein, said knob having an enlarged portion of relatively harder rubber the central portion of which comprises a piece of vulcanized rubber embedded therein, and a support-contacting portion of relatively softer rubber molded about the shank of said anchoring screw.

5. A rubber knob having its enlarged outer or grasping portion of relatively harder rubber and its smaller support-contacting portion of relatively softer rubber, whereby said support-contacting portion will yield under axial anchoring compression and spread circumferentially against the surface to be contacted, the enlarged grasping portion having an inlay in its outer face that is harder than the rubber which surrounds it.

6. The method of manufacturing knobs which comprises arranging a plurality of pieces of rubber about one end of a screw, at least one piece lying across said end of the screw and the remainder surrounding the shank of the screw, the outer piece being of relatively harder uncured rubber and the innermost piece on the shank of the screw being of relatively softer uncured rubber, and then molding and vulcanizing said pieces to knob shape under pressure and heat while thus associated with the screw to produce a knob having a harder outer or grasping portion, an elastic inner or support-contacting portion, and a threaded screw-receiving portion extending through the elastic portion substantially into the grasping portion.

JAMES H. STEDMAN.

Nov. 28, 1933. J. H. STEDMAN **1,936,775**

RUBBER KNOB AND METHOD OF MAKING

Filed Oct. 18, 1929 2 Sheets-Sheet 1

Fig.1

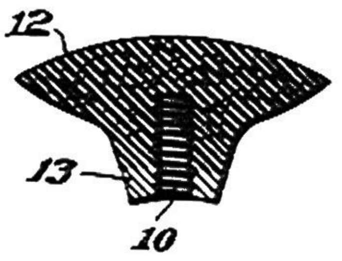


Fig.2

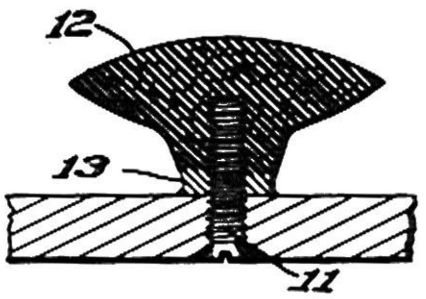


Fig. 3

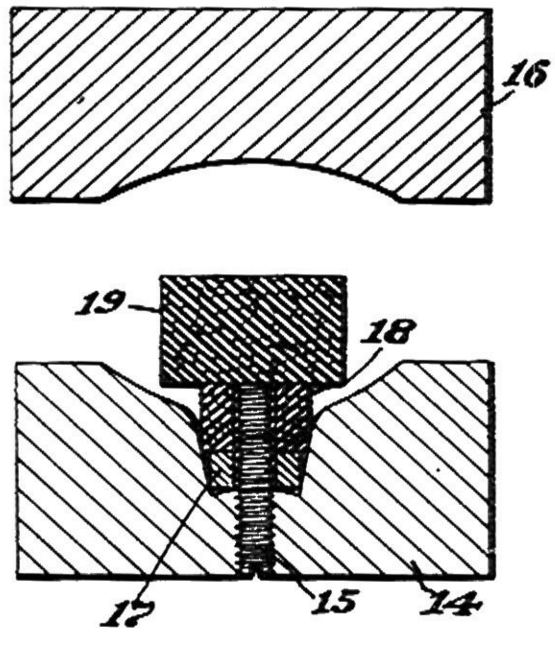


Fig.4

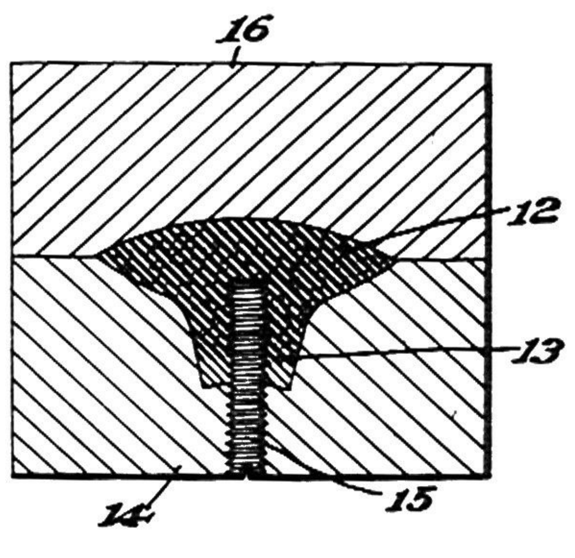


Fig.5

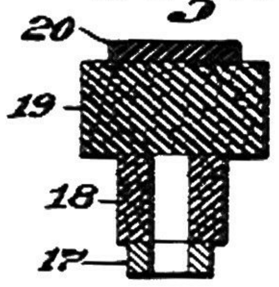
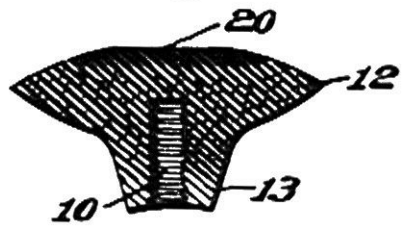


Fig.6



INVENTOR
James H. Stedman

BY Warren G. Ogden
his ATTORNEY

Nov. 28, 1933. J. H. STEDMAN 1,936,775

RUBBER KNOB AND METHOD OF MAKING

Filed Oct. 18, 1929 2 Sheets-Sheet 2

Fig. 7

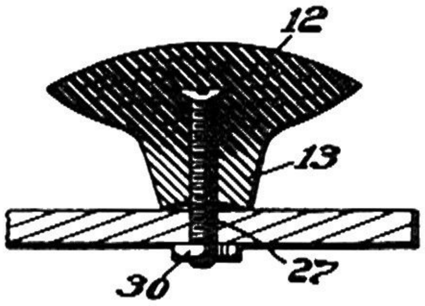


Fig. 8

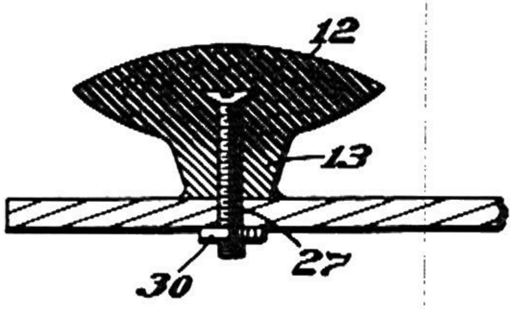


Fig. 9

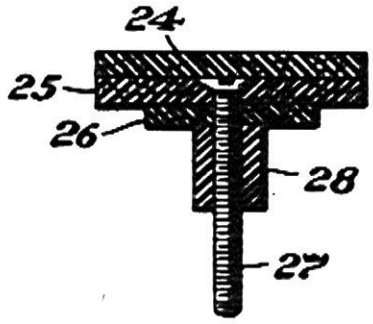


Fig. 10

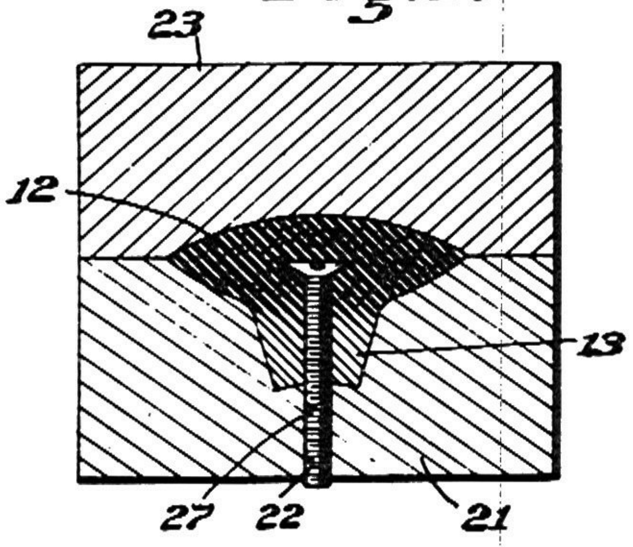


Fig. 11

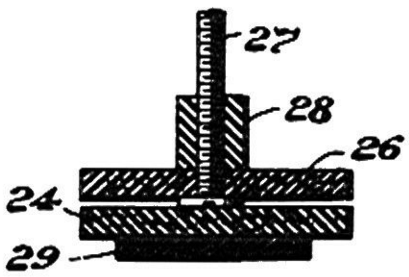
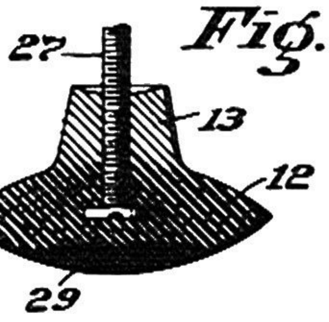


Fig. 12



INVENTOR
James H. Stedman
BY Warren G. Ogden
his ATTORNEY

May 17, 1949. F. E. KOHLER 2,470,439

SAFETY PLATE

Filed March 3, 1947

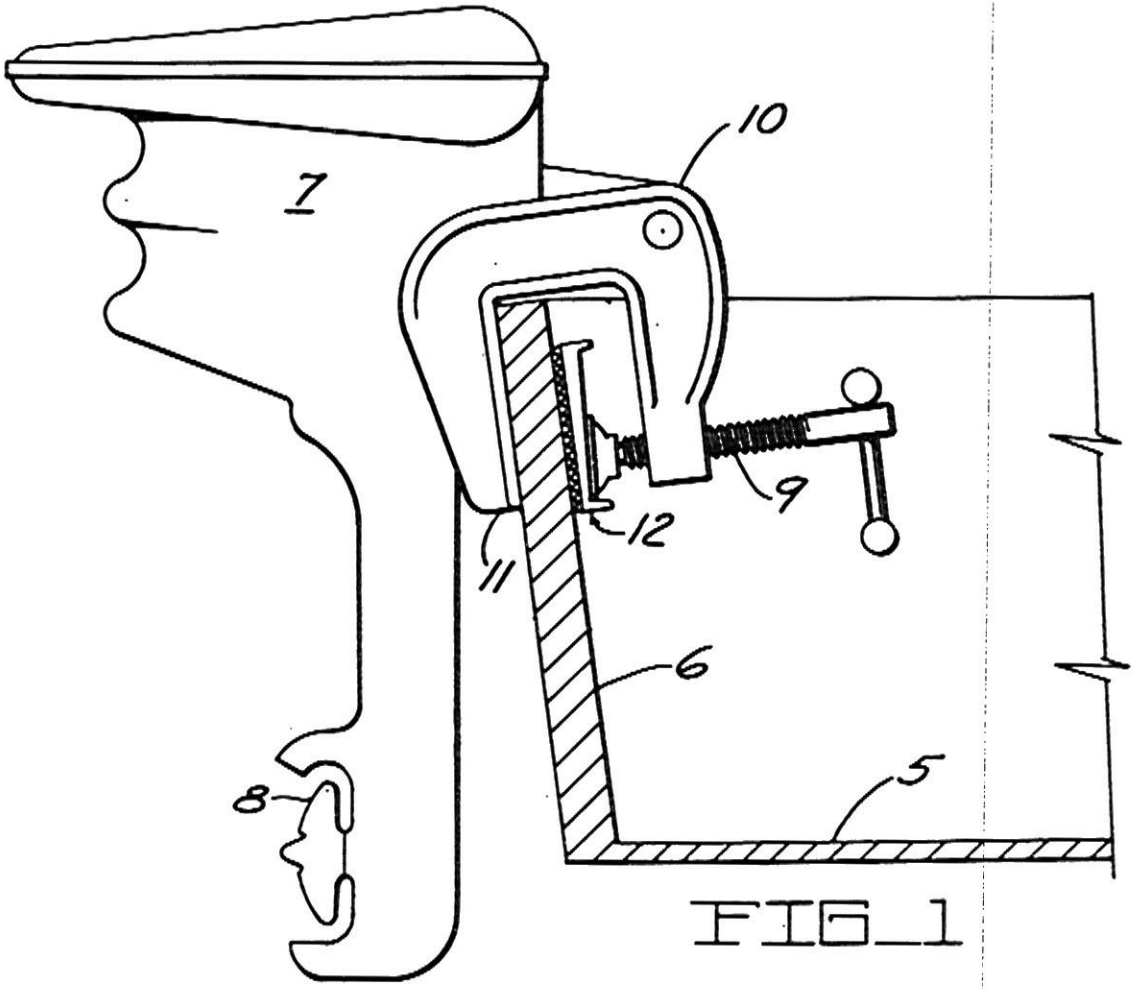


FIG_1

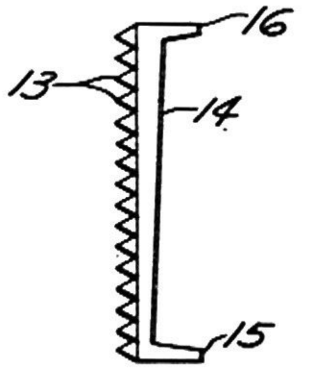


FIG_4

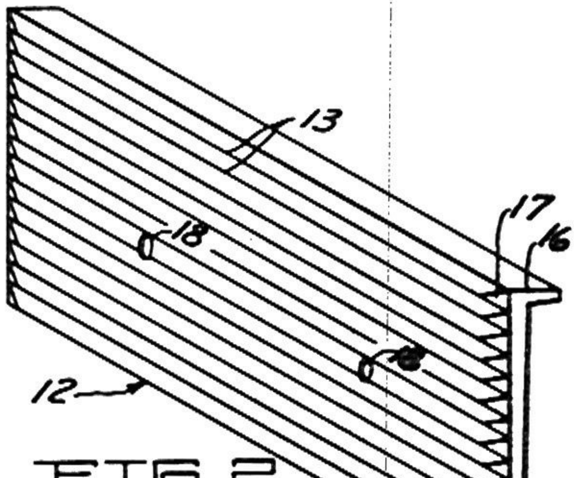


FIG_2

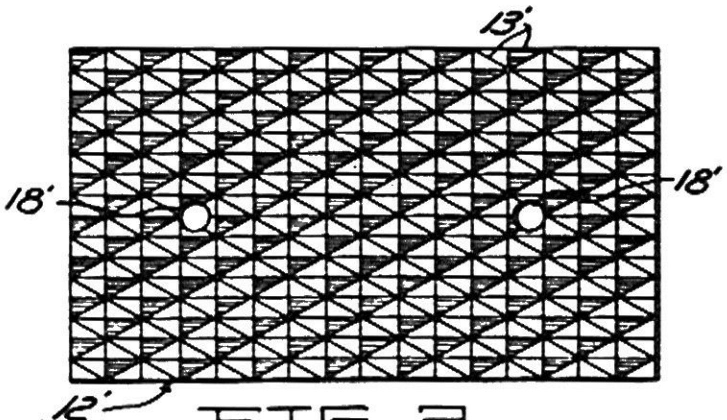


FIG_3

INVENTOR.
FREDERICK E. KOHLER
BY Oswald H. Milmore
His attorney

UNITED STATES PATENT OFFICE

2,470,439

SAFETY PLATE

Frederick E. Kohler, Berkeley, Calif.

Application March 3, 1947, Serial No. 732,107

4 Claims. (Cl. 248—4)

This invention relates to improvements in clamping devices, and is particularly concerned with an improved safety plate adapted to be mounted between a supporting structure and one of the jaws of a clamp. In one embodiment, it takes the form of a metallic plate which is placed against a structural part of a boat, such as the stern transom, for holding in place a clamp used to attach an outboard motor to the boat. The safety plate may, however, be used for securing other clamps to supports.

An outboard motor is usually attached to the stern transom of a boat by means of one or more screw clamps or cam actuated clamps. The vibrations of the motor and the lateral and upward thrusts on the clamp occasioned by the operation of the craft frequently result in slipping between the supporting clamp and the transom and the frictional engagement of the clamps is usually insufficient to prevent creeping of the clamp along the transom. As a consequence outboard motors frequently become detached from the boat and drop into the water.

While such outboard motors can be firmly secured to boats by means of bolts and clamping plates bolted to the transom, such expedients are not commonly in use because their application is time-consuming and because users of outboard motors frequently attach their motors to hired boats which are not provided with the requisite fixtures, the clamping arrangements being, moreover, not of identical design.

It is the principal object of the present invention to provide an improved safety plate which will reduce the danger of relative motion between a supporting structure and a compression clamp.

It is a further object to provide an improved safety plate which is simple and efficient and which may either be permanently secured to a boat or other support, or may be employed without screwing, bolting, or otherwise fixing it to the support, other than by the action of the compression clamp.

Still another object is to provide a clamping arrangement wherein vibrations of the supported or supporting structure will automatically tighten the clamp.

A more specific object is to provide an improved arrangement for attaching an outboard motor to a supporting part of a boat, such as the stern transom, which will minimize the danger of loss of the motor by slipping of the clamp along its supporting structure.

With these and other objects in view, which will be in part obvious and in part pointed out in the course of the following description of the elements and applications of principles constituting the invention, reference is made to the accompanying drawings, forming a part of this specification and illustrating two specific embodiments of the invention, wherein:

Fig. 1 is a longitudinal cross-sectional view of a boat, parts being shown in side elevation, illustrating one mode of applying the invention;

Fig. 2 is a cabinet projection of the safety plate shown in Fig. 1;

Fig. 3 is an elevation view of a modified form of safety plate; and

Fig. 4 is an end view of the safety plate shown in Figs. 1 and 2.

Briefly, the novel element of my clamping arrangement comprises a safety plate the inclined faces of which are inclined slightly one to another so as to impart to the plate a trapezoidal cross-section. This plate is placed against the surface of the support with its thicker edge toward the free edge of the support. The face of the safety plate in contact with the support, hereinafter referred to as the "inner" face, is irregular or roughened, being preferably provided with serrations, for preventing sliding movement with respect to the support. When the support is made of yieldable material, such as wood or plastic, or a metal which is softer than that of which the safety plate is constructed, the serrations indent the surface of the support slightly to prevent slipping. The inner face of the plate may, of course, also or instead engage a complementary serrated yieldable or rigid surface on the support. The other face of the safety plate, hereinafter designated the "outer" face, is relatively smoother, i. e., it may be quite smooth or slightly rough; it is engaged by one of the jaws of the clamp, which may be either fixed or movable. In the embodiment shown in the drawings the movable jaw of the clamp engaged the safety plate, while the fixed jaw engaged the remote surface of the support. The safety plate is so positioned that the clamp jaw engages the plate at or near the thinnest part of the plate. The plate has a flange or other means, such as a projection, extending from the outer face to engage the side of the engaging clamp jaw to prevent this jaw from sliding away from the thicker edge.

With the arrangement described above, the clamp is firmly secured to its support notwithstanding vibrations imposed either on the support or on the clamp as would be caused, for example, by the operation of an outboard motor carried by the clamp. Vibrations which urge the clamp away from the free edge of the support cause the enaging jaw to bear against the plate flange or other positive stop or projection thereon; when such movement is not prevented by engagement of the clamp arms with the free edge of the support, this pushes the safety plate away from the free edge of the support. Vibrations which urge the clamp toward the free edge of the support, i. e., toward disengagement therewith, cause the engaging clamp jaw to slide up the inclined outer face of the safety plate, thereby further tightening the rough, inner face against the support. It was found in practice that this action takes place with a plate of the design described herein in preference to an upward movement of the safety plate.

The invention will be better understood by reference to the drawings illustrating certain specific modes of applications. Figs. 1, 2 and 4 should be taken together; they show the invention applied to a boat having a bottom 5 and a stern transom 6. An outboard motor, indicated generally at 7, having a propeller 8, is attached to the stern transom by means of a clamp having a movable jaw in the form of a screw 9. The motor has a hinged connection with the clamp at 10. The fixed jaw 11 of the clamp engages the outer face of the transom.

In this embodiment the stern transom is the support and its upper edge is the free edge. The safety plate 12 is placed against the inner surface of the transom and clamped thereto by the movable jaw 9. The inner face of the safety plate has horizontal serrations 13, preferably with sharp ridges. The outer face 14 is inclined with respect to the inner face, as shown more particularly in Fig. 4. A suitable incline for a cast plate made of aluminum is 5%, i. e., the outer face slopes away from the inner face at the rate of one inch for twenty inches in height of the plate. I may, however, also use other slopes, e. g., 3% to 10%, and slopes falling outside of this range may, under certain conditions, be used. When the slope is too great and/or the outer face is too rough the vibrations tend to shift the safety plate toward the free edge of the support instead of causing the jaw to slide up the incline to wedge the safety plate more tightly against the support.

A flange 15 extends along the thinner edge of the plate, i. e., along the lower edge in the embodiment shown. A similar flange 16 may be provided at the thicker edge but may, if desired, be omitted. The ends of the serrations are preferably provided with bevelled ends 17 to assist in restraining the plate against horizontal motion, but a bevelled construction is optional. Similarly, holes 18 may be provided optionally for mounting the safety plate on the support by means of flat head wood screws, not shown. Such an attachment would be used merely as a convenience and is not essential to the functioning of the safety plate, which operates satisfactorily without being secured to the support by any force other than the force of the clamp.

In using the device the safety plate is placed as shown in Fig. 1 and the clamp is attached with the head of the movable jaw 9 in engagement with the lower flange 15. The clamp is tightened and will then remain in position notwithstanding considerable vibration.

While a single screw clamp 9 has been shown in the sectional view of Fig. 1, it is understood that the plate may be made of any desired length to accommodate a plurality of clamps, or for holding several adjustable jaws 9 of the same clamp.

In the modified form shown in Fig. 3 the safety plate 12' is provided with a plurality of intersecting serrations, i. e., with criss-cross serrations 13', resulting in a pattern of diamond-shaped or rectangular pyramidal peaks, effective for preventing lateral as well as vertical movement of the plate with respect to its support. This plate may optionally be provided with screw holes 18'. Its outer face, not shown, is constructed at an incline and with flanges, like the face 14 of the plate shown in Figs. 1 to 3. The mode of use of this modified plate is the same as previously described.

The safety plate may be constructed of any suitable material, such as stainless steel, bronze or aluminum, and may be machined or cast.

While the safety plate has been shown as applied to the mounting of an outboard motor to a boat, it is evident that the invention is not restricted to such use, but may be used to secure other clamps to supports, particularly where such clamp is subjected to vibrations.

I claim as my invention:

1. A safety plate for clamps having two faces inclined one with respect to the other, one face being rough and the other smoother, and means on the smoother face extending substantially along a line of constant thickness of said plate for engaging a clamp against sliding movement past the thinner edge of the plate.

2. A safety plate for clamps having two faces inclined one with respect to the other, serrations on one face, the other face being adapted to engage the jaw of a clamp so as to permit sliding motion of said jaw for at least a portion of the plate in the direction toward the thicker edge, and means near the thinner edge of the plate extending substantially across the plate at a line of constant thickness of said plate and for preventing sliding motion of said jaw past the thinner edge of the plate.

3. The plate according to claim 2 in which the ends of the serrations are bevelled.

4. A safety plate for clamps having two faces inclined one with respect to the other and serrations on one face, the other face being smoother than the face with serrations, and a pair of flanges extending outwardly from the smoother face, one flange being along the thinner edge and the other along the thicker edge of the plate.

FREDERICK E. KOHLER.

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A. V. GULLBORG.
HANDLE AND METHOD OF MAKING THE SAME.
APPLICATION FILED DEC. 21, 1918.

1,365,985. Patented Jan. 18, 1921.

Fig. 1

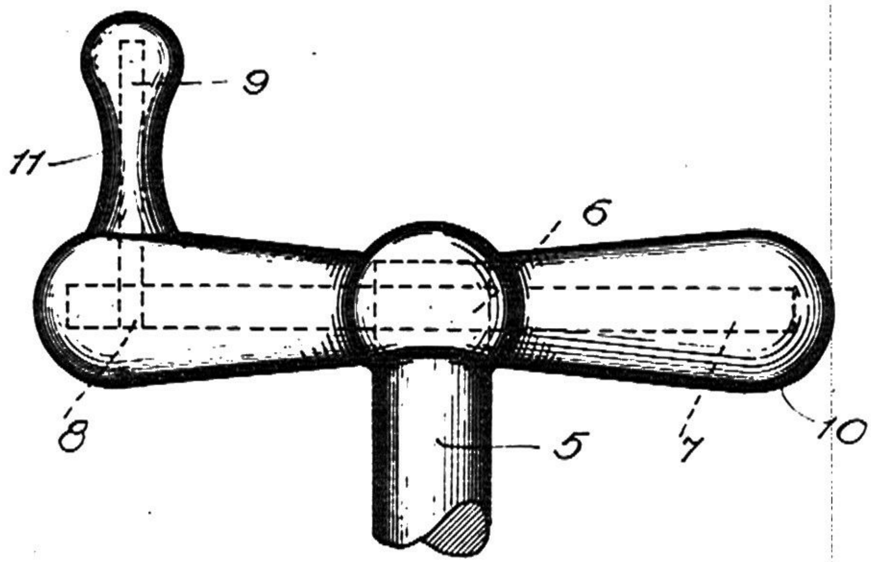
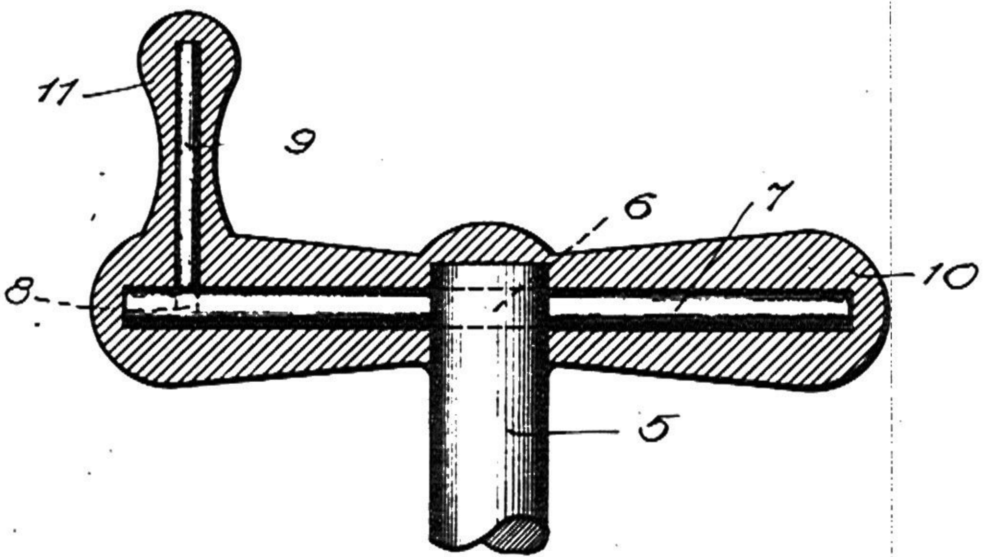


Fig. 2



Witnesses:
Andrew Wintercorn
Earl F. Peirce

Inventor
Arthur V Gullborg
By Williams, Bradbury & Hee
Attys.

UNITED STATES PATENT OFFICE.

ARTHUR V. GULLBORG, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE BASSICK MANUFACTURING COMPANY, A CORPORATION OF DELAWARE.

HANDLE AND METHOD OF MAKING THE SAME.

1,365,985. Specification of Letters Patent. **Patented Jan. 18, 1921.**

Application filed December 21, 1918. Serial No. 267,857.

To all whom it may concern:

Be it known that I, Arthur V. Gullborg, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Handles and Methods of Making the Same, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to handles and a method for making the same. The objects of the invention are, first, to provide a simple and durable handle structure; and, second, to provide a method for economically manufacturing these handles.

Other objects will appear as the description progresses, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved handle; and

Fig. 2 is a longitudinal section therethrough.

Similar characters of reference refer to similar parts in both views.

Referring to the drawings the reference character 5 indicates a stem or shank which is to be rotated in order to adjust any desired mechanism or for any other desired purpose. Adjacent its outer end the shank 5 is provided with a bore or opening 6, shown in dotted outline in both figures, through which the rod 7 is inserted. Adjacent one end of the rod 7 is an opening 8 which receives the lower end of the rod 9. In forming the handle I assemble the shank 5 and the rods 7 and 9 in the manner just described, and then die cast a suitable metal inclosure 10 about the end of the shank 5 and the rods 7 and 9, so as to completely embed these portions of the handle and prevent them from moving relatively to each other.

From the above description it will be clear that the rod 7 and the die cast metal inclosure 10 mutually lock each other to the end of the shank 5, and that the rods 7 and 9 reinforce those portions of the die cast metal which inclose these rods.

By the above method I am able to produce a handle structure with but comparatively little machining, the only machining necessary being that required to provide the holes 6 and 8 through which the rods 7 and 9 are respectively inserted, and this is a mere drilling operation. The cost thereof is very small. The exterior of the die casting can be very easily provided with a suitable finish, thereby furnishing a smooth neat handle structure at a very low cost.

Other adaptations and modifications of my invention will be apparent to those skilled in this art. My invention is of course not limited to providing handles for a shank 5 which is to be rotated, but can be used for providing handles of any type.

Having thus described my invention, what I claim is:

1. A handle structure comprising a shank provided with a transverse opening, a rod extending through said opening and provided adjacent one end with a transverse opening, a second rod inserted in said second opening, and a unitary die cast metal inclosure embedding the end of said shank and said rods and preventing movement of said shank and rods relative to each other.

2. A handle structure comprising a shank provided with a transverse opening, a rod extending through said opening and provided adjacent one end with a transverse opening, a second rod inserted in said second opening, and a die cast metal inclosure embedding the end of said shank and said rods and preventing movement of said shank and rods relative to each other.

3. A handle structure comprising a shank provided with a transverse opening, a rod extending through said opening, and a metal inclosure forming an elongated handle embedding the end of said shank and said rod and preventing movement of said shank and rod relatively to each other, the said rod reinforcing said metal inclosure against bending stresses.

In witness whereof, I hereunto subscribe my name this 14th day of December, 1918.

ARTHUR V. GULLBORG.

Witnesses:
John E. Carlson,
John L. Steffen.

N° 14,025 A.D. 1891

Date of Application, 19th Aug., 1891—Accepted, 17th Oct., 1891

COMPLETE SPECIFICATION.

Improvements in Handles for Bicycles and other purposes.

I, Henry Willock Ravenshaw, of 32 Albany Road, Ealing Dene, in the County of Middlesex, Civil Engineer, do hereby declare the nature of my invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My invention relates to improvements in handles for bicycles and other purposes where there is excessive vibration, which is likely to be felt by the person holding the handle or in contact therewith. The object of my invention is to provide means whereby any shock or vibration which is transmitted to the handle is absorbed in such a manner that it is not felt by the hand holding the handle or communicated in any way to that part of the person which is in contact with it.

My invention consists in the construction of the handle which I will here describe as a bicycle handle by way of illustration and in order that my invention may be better understood I will now describe it in relation to the drawings hereunto annexed reference being had to the letters and figures marked thereon, like letters refer to like parts throughout the figures.

Figure I is a longitudinal section through the handle, the handle bar being in elevation.

Figure II shows a modified method of supporting the handle with additional intermediate rings.

Figure III shows the application of this invention to a Tee-handle.

I carry my invention out as follows:—

I form the handle proper of a tube *a* of soft vulcanised indiarubber and I fix it to the handle bar or support *b* in such a way that the greater part of the indiarubber tube is not in direct contact with the support.

This I do by inserting projections or rings *c. c.* of metal, wood, or other material (but preferably formed of india-rubber) between the interior of tube *a* and the handle bar *b*.

The india-rubber tube *a* is made of sufficient thickness to support the weight or pressure it has to bear, without touching the handle bar at any intermediate point between the supports or rings *c*, or without the assistance of an internal pressure of air or other fluid while having sufficient elasticity to absorb vibration.

I prefer to support the handle by making the handle bar or support *b* which passes through the inside of the rubber handle *a* in the form of a tube or bar of metal of smaller diameter than the hole through the inside of the rubber handle *a*, the rings, projections, or supports *c c* being separated from the handle *a* in the case of their being made of metal wood *etc.*, but when formed of india-rubber they can be formed intregal with the handle *a*.

The tube or handle *a* may be made of any convenient shape to suit varying circumstances.

In Fig. III the indiarubber is divided at *d* into two halves $a\,a^2$, recesses being cut out so that the two halves will fit round the handle bar *b*, each half can thus be slipped over the end of the Tee.

A Tee piece forming the means of junction between the cross piece and handle bar *b* is used as the central support for the india rubber handle.

The handle may be divided longitudinally if more convenient for its attachment to the handle bar or support.

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Having now particularly described and ascertained the nature of my invention and in what manner the same is to be performed I declare that what I claim is:—

1st. A handle to absorb vibration consisting of an exterior envelope or tube of soft vulcanised india-rubber supported on its interior by a handle bar so that the greater length of the interior of the envelope or tube is not in contact with its support, the thickness of the envelope being made sufficient to support the weight, and prevent contact, and elastic enough to absorb vibration.

2nd. In such an anti vibratory handle a soft india-rubber envelope or tube in combination with rings, projections, distance pieces, or supports separate from or integral with the envelope or tube and the support or handle bar substantially as described and illustrated in the accompanying drawings.

3rd. In a Tee handle of this type the construction and arrangement of parts substantially as specified and illustrated in the accompanying drawings.

Dated this 19th day of August 1891.

FELL & WILDING,
1, Queen Victoria Street, London, E.C., Agents for the Applicant.

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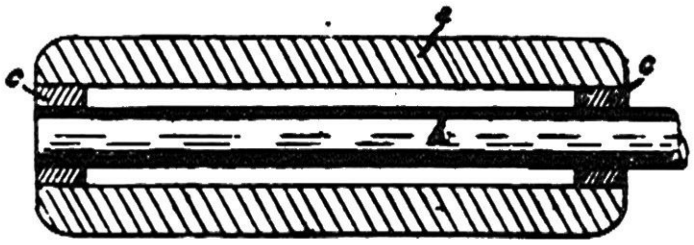

FIG. 1.

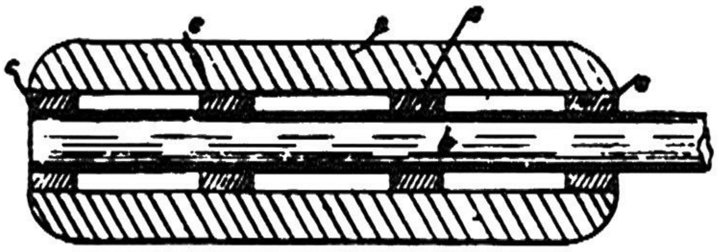

FIG. 2.

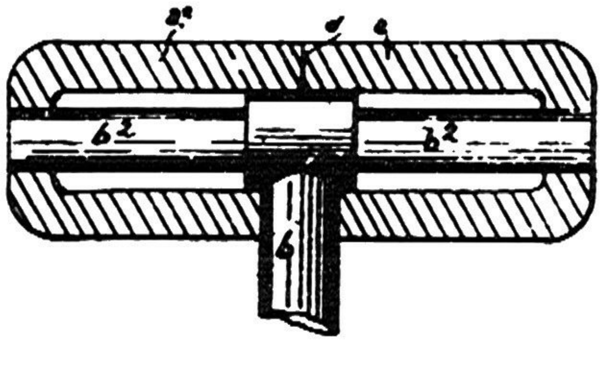

FIG. 3.

[This Drawing is a reproduction of the Original on a reduced scale]

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BRIEF FOR APPELLANT

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

United States Court of Appeals
For the
District of Columbia Circuit
FILED OCT 15 1957
Joseph W. Stewart
CLERK

No. 13,969

ELMER C. KIEKHAEFER
Appellant

v.

ROBERT C. WATSON
COMMISSIONER OF PATENTS
Appellee

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

ELWIN A. ANDRUS
Milwaukee, Wisconsin
Attorney for Appellant

Of Counsel:

Solon Kemon
Washington, D. C.

Guenther Holtz
James E. Nilles
Milwaukee, Wisconsin

Robert I. Thiel, Printer
Washington, D. C.
EX 3-0625

QUESTIONS PRESENTED

One question is whether invention was involved in providing a highly resilient covering fully embedding a cross member and the adjacent portion of its threaded shank of an outboard motor clamp and thereby producing new results which were not obvious to the persons skilled in this art for decades.

Another question is whether one claim, which clearly and distinctly sets forth the invention in terms of structure in accordance with the statutory requirements, is prolix simply because interrelated functional statements are also used to clarify the inventive concept involved.

Another question is whether the claims are directed to an old combination merely because they include some elements that are common to the prior art, yet necessary to the combination in order to express the full utility of the invention.

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UNITED STATES COURT OF APPEALS
For The District Of Columbia Circuit

No. 13,969

ELMER C. KIEKHAEFER

Appellant

v.

ROBERT C. WATSON
COMMISSIONER OF PATENTS

Appellee

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

BRIEF FOR APPELLANT

JURISDICTIONAL STATEMENT

This is an Appeal under Section 1291 of Title 28 U.S. Code, from the holding of the District Court of the United States for the District of Columbia, denying the right of appellant to a patent, in a suit against the Commissioner of Patents under Section 145 of Title 35, U. S. Code.

STATEMENT OF CASE

The invention involved relates generally to a clamp device for attaching an outboard motor to a boat. More particularly the invention concerns the manually operated handle for tightening the clamp to the boat.

The prior art clamp as exemplified in either Haller or Kohler of record comprised a threaded shank which had a metal cross member extending transversely therethrough. The cross member extended from each side of the shank and was grasped by the hand to turn the shank and effect the necessary clamping action.

These former prior art structures were objectionable for many reasons:

1. The metal cross member, in order to be inserted through a transverse bore in the threaded shank had to be of such small diameter as to hurt the hand of the operator in attempting to apply the necessary force for tightening of the clamp, and prevented the operator from applying the necessary force for tightening of the clamp, thereby resulting in loosening of the support for the outboard motor and loss of motors by dropping into the bottom of the lake. (R. 29, 30, 32, 33)

2. A wrench had to be used in order to avoid injury to the hand, and this frequently resulted in over tightening of the clamp and breaking of the bracket with consequent loss of the motor in the water. (R. 32)

3. Again, where the cross rod was assembled in the shank by a drive fit, the necessary dimensional tolerances of the rod and the bore were so limited as to make the manufacture impractical unless a given number of assemblies were actually loose. (R. 51)

4. Where the cross rod was intentionally loose in the bore of the shank and held in by some means such as the end enlargements shown in Kohler, the hand of the operator was frequently injured by pinching. (R. 14)

5. Again, a loose cross rod as in Kohler rattled severely from engine vibration greatly increasing the noise level for the outboard and tending to loosen the clamp. (R. 30, 33, 49)

These various objections to the former outboard motor clamps resulted in complaints from customers and claims against the manufacturer for damages and for loss of motors. (R. 32, 33)

The clamp of the present invention includes a threaded shank with a metal cross member extending transversely therethrough and a molded resilient hand grip fully embedding the cross member and the adjacent portion of the shank.

This new construction has great utility as indicated by the many advantages, partially recited as follows:

1. The molded hand grip is of such a size as to fit in the hand and make it possible for the operator to apply the necessary force for actuating the clamp and without hurting the hand, an important feature in meeting the requirements of larger outboards and of lady operators. (R. 15, 29, 51)

2. The new structure is such that looseness of the cross rod in the bore is not objectionable since the molded rubber retains the rod in place without further means. (R. 30, 49, 51)

3. The structure is such as to discourage the use of a wrench in tightening the clamp, and where a wrench is used, the molded material will bear indicating marks of abuse which will minimize claims for damage. (R. 34, 35)

4. The structure of the invention eliminates the close tolerance limits in dimension of the cross rod and bore, and the molded hand grip retains the cross rod in position even though it may be initially loose in the bore. (R. 30, 49, 51)

5. With the new structure the operator's hand is never injured in actuating the clamp since there is no exposed pinching action as with the structure of Kohler, and there is no exposed peened surfaces as with the structure of Haller, when repaired. (R. 14)

6. All rattle and noise is eliminated by the new structure. (R. 35, 37, 49)

7. Greater clamping tightness can be attained by the operator without a wrench or other tool, as required by present day larger outboards. (R. 30)

8. The new structure prevents rust, especially troublesome in salt water, at the joint of the cross rod and shank which accelerates the loosening of the cross rod. (R. 32)

The new structure resulted in an immediate stopping of all complaints based upon clamping of the outboard and there have been no more claims based upon defective clamps. (R. 34, 35)

The embedding of the cross member and adjacent portions of the shank in a resilient hand grip as called for in the present invention effected a new result and coaction of the elements as combined, over and above those pointed out above with respect to the utility of the structure. The resilient material of the hand grip serves to retain the cross rod in its correct relationship to the shank at all times and regardless of looseness of the rod in the bore, a result not attained by any prior art structure. The resilient material yields during manual actuation of the clamp to accommodate any movement between the cross rod and shank permitted by looseness of the rod in the bore. Thus, in the construction, the shank may be treated as a rigid fixed member while both the cross rod and resilient hand grip may move relative thereto. This coaction of the elements is not present in the prior art.

The new structure has been adopted by the Kiekhaefer Corporation, of which appellant is President, for all of its "Mercury" outboard motors, and substantial commercial use of the invention has been enjoyed. (R. 35, 36)

The District Court held that to rubbercoat anything could not be invention (see Finding 13. R. 85). The main question on this appeal is whether the change in structure provided by Appellant, with resulting outstanding utility and the new coaction of the elements pointed out above, constitutes invention, particularly when the industry had suffered from its inception with the many defects of former clamp construction and no one prior to Appellant appears to have solved the problems. (R. 33)

STATUTES

35 U.S.C. 102 Conditions for Patentability; Novelty and Loss of Right to Patent

> A person shall be entitled to a patent unless: ---
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or ---.

35 U.S.C. 103 Conditions for Patentability; Non-obvious Subject Matter

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. 112 Specification

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

STATEMENT OF POINTS

(1) The Court below erred in not finding that Appellant's structure involved more than the mere placing of rubber around a handle; in finding that Appellant's improvement is the product of mechanical skill rather than of the inventive faculty; and in finding that the claims do not define invention over structures known in this country and structures also used in public in this country prior to Appellant's improvement.

(2) The Court below erred in finding Claim 1 unduly prolix and therefore failing to particularly point out and distinctly claim the novel substance as is required by 35 U.S.C. 112.

(3) The Court erred in holding Claims 1 and 2 unpatentable as improperly drawn to Haller's or Kohler's old combination in an outboard-motor-unit of a clamp member, a threaded shank, and a handle means.

(4) The Court erred in holding the Appellant is not entitled to a patent containing either of Claims 1 and 2 of his application, Serial No. 226,709, in affirming the Board of Appeals, and in dismissing the complaint.

SUMMARY OF ARGUMENT

1. Issue of Invention. Applicant's invention includes the combination with a cross member and those portions of the shank adjacent thereto of a highly resilient hand grip fully embedding the same, and which resulted in new and desirable coaction of the parts and utility thereof not shown or suggested in the prior art and which were unobvious to those skilled in the art. The invention, therefore, consisted of more than the mere covering of a member with a resilient material, - new and unobvious results were obtained. It, in fact, entirely eliminated serious complaints that had existed for decades with respect to prior art structures.

2. Issue of Prolixity. Non-analogous prior art was cited against the present invention, the art being from fields not having the same problems as are involved in an outboard motor clamp, such as bicycle handle bars, vacuum cleaners, lawn mowers, door knobs and other devices. The single claim charged as being prolix is drawn to the specific field where its subject matter has found great utility and commercial success. In this particular art severe engine vibrations contribute materially to looseness and rattling between the cross member and shank. The resilient material as used in this invention accommodates this looseness and permits the required movement between the parts and at the same time prevents rattling. The claim in issue, Claim 1, brings out these functional characteristics as well as distinctly reciting the structural relationships between the various elements. This claim does not contain immaterial things, repetitious language or indefinite expressions, - in short, the claim is not prolix. Any functional statements serve only to more clearly inter-relate the various elements.

3. Issue of Old Combination. The claims are not faulty as being drawn to an old combination. The elements objected to by the Patent Office are included in the claims because they are necessary to the inventive combination so as to give utility to the invention. To strip the claims of any of the elements called for would take the invention out of the art where it finds particular utility in overcoming specific problems peculiar to that art. All of the elements mutually coact and contribute to the action of the outboard motor clamp, in providing better clamping action and improved clamp life. The vibrations transmitted from the motor through the elements of the clamp are ineffective to cause rattling and loss of the cross rod.

ARGUMENT

Invention is Present

Plaintiff-Appellant has no quarrel with the proposition that merely covering a single rigid structure with a coating of rubber is not invention; but where the covering provides a coaction between separate elements and retains one relative to another it is no longer merely a covering. Furthermore, where the material of the covering is molded in a form to provide a hand grip having the new and unforeseen results of the present structure (p. 5, 6 supra) it ceases to be a mere cover and takes on the vitality of an element of a true combination having substantial utility.

In the present case, there had been a long-standing problem in the construction of outboard motor clamps which resulted in many complaints (R. 32). The present combination eliminated these complaints (R. 34, 35).

The District Court completely ignored these important factors pointing toward invention and made no findings thereon.

For the benefit of the Court a drawing is submitted herewith schematically showing the structure under consideration with the shank sectioned in a transverse plane containing the longitudinal axis of the cross member. The resilient material forming the hand grip is molded upon the shank and cross member so that the latter is completely embedded in the grip and is held thereby in the bore of the shank. The drawing corresponds generally to a part of Figure 4 of the drawings of the Kiekhaefer application involved on this appeal.

The dimensions of the parts in the drawings have been taken off the production drawings of Kiekhaefer utilizing the maximum permissible diameter for the bore in the shank and the minimum permissible diameter for the cross member that are possible under the required manufacturing tolerances for these dimensions. The drawing, of course, is enlarged in exact proportion as to all dimensions of the parts and shows in enlargement a clearance proportional to approximately one thousandths of an inch occurring on all sides of the cross member in the bore.

When a force is applied to the hand grip in the direction of the arrows as would occur in tightening the clamp, the resilient material of the hand grip becomes compressed in the areas marked "C" and is tensioned in the areas marked "T" as the cross member moves in the bore to take up the clearance referred to. Upon a reverse force applied to the hand grip as in loosening the clamp, an opposite movement of the cross member will occur and the compression and tension areas will be reversed. The tilted broken lines represent the extreme positions for the cross member resulting from the respective forces referred to.

Thus in assemblies which have a looseness of the cross member in the bore, there is a definite coaction between the elements of the combination as shown here. This coaction is not present where the cross member is permanently tight in the bore; but as explained previously, manufacturing tolerances are such that some looseness is present in some percentage of the assemblies, and these definitely need this coaction in order to make them commercially acceptable.

The structure of the present invention has entirely eliminated rejection of assemblies in manufacture and customer complaints from loose assemblies in use (R. 34, 35). In addition, the great utility of the invention appears clearly from its accomplishments outlined supra (p. 5, 6).

A structure having the coaction and utility referred to is not found in any reference. The Haller and Kohler patents of record are representative of the only prior outboard motor clamps, and they wholly fail to solve the problems referred to supra (p. 3, 4). It is the object of the present invention to overcome the defects of these reference structures. The bicycle handle art, door knob art and other non-analagous art (R. 19, 20) as exemplified by the remaining patents of record here, in some of which a rubber or resilient covering is provided for a handle, did not show the type of coaction present in the structure on this appeal.

The use of a resilient molded hand grip embedding the cross member and adjacent parts of the shank of an outboard motor clamp effected a new coaction between the parts that was not present individually in prior construction, and produced new and unobvious results in wholly eliminating the many aggravating problems of prior structures that had been used for decades (supra p. 3, 4). This constitutes invention of the highest order. Particularly is this so where the solution appeared simple after its accomplishment but had not been seen for years.

As this Court states in Levin v. Coe, Commissioner of Patents, 76 App. D.C. 347, 132 F. 2d 589, 596:

> "The fact that the combination later appears to be a simple one does not necessarily negative the presence of a high degree of inventive genius. Loom Company v. Higgins, 1881, 105 U.S. 580, 26 L. Ed. 1177; Diamond Rubber Co. v. Consolidated Rubber Tire Co., supra. We recognized these principles in Electrons, Inc. v Coe, 1938, 69 App. D.C. 181, 99 F.2d 414."

and the Supreme Court recognized that an invention may in retrospect appear simple when it said:

> "Viewed after the event, the means Anthony adopted seem simple and such as should have been obvious to those who worked in the field, but this is not enough to negative invention. During a period of half a century, in which the use of flashlight storage batteries increased enormously, and the manufacturers of flashlight cells were conscious of defects in them, no one deviced a method of curing such defects. Once the method was discovered it commended itself to the public as evidenced by marked commercial success. These factors are entitled to weight in determining whether the improvement amounted to invention, and should, in a close case, tip the scales in favor of patentability." Goodyear Tire & Rubber Co. v. Ray-O-Vac Co., Supreme Ct., February 28, 1944, (64 S.C. 593, 594)

See also L-O-F Glass Fibers Company and Everett J. Cook, Appellants, v. Robert C. Watson, Commissioner of Patents, 228 F.2d 40, 97 App. D.C. 69.

In "The Barbed Wire Patent" case, (143 U.S. 275) the invention comprised putting sharpened transverse wire pieces in between two twisted wire strands. The sharpened pieces, or spurs, were mounted on one of the wires by being coiled therearound. The prior art showed twisted wires as well as spurs to be old. However, the prior art spurs consisted of flat pieces of metal having a hole in their center which received the twisted wires therethrough. The improved device prevented the spurs from sliding or rotating on the twisted wires which was the new result obtained over the prior art.

The Supreme Court sustained this seemingly small change of one of the elements which served to retain the transverse member in place and prevent its sliding on the wires. In Textile Machine Works v. Hofmann et al, 4 F. Supp. 837 the District Court upheld the patent which taught only the addition of a pawl and ratchet over the prior art for reversing the direction of a spindle. The Court held that this addition was a decided advance in the art, performing its function more expeditiously than any contrivance or attachment previously used. Upon appeal, Alfred Hofmann Inc. v. Textile Mach. Works 71 F 2d 973, the decision of the District Court was affirmed. See also Diamond Rubber Company v. Consolidated Rubber Tire Company, 220 U.S. 428, 31 S. Ct. 444, 55 L Ed. 527 wherein the Supreme Court upheld the invention which consisted principally in omitting cement between a tire and the wheel whereas the prior art had disclosed cementing.

The Claims Are Not Unduly Prolix

Finding No. 16 holding Claim 1 to be unduly prolix and, therefore, allegedly failing to particularly point out and distinctly claim the novel features of the invention is clearly in error. There is no statutory authority as to what constitutes prolixity and whether a claim is prolix is a matter of judgment.

In the Exparte Duncan case cited by appellee, the Commissioner found that the applicant confused the issues by reason of indefiniteness of claim, caused both by indistinct language and by duplicating claims (Fifteen claims were involved). He furthermore found that the applicant even left out any positive statement of one element of a claim, namely an actual speed record, but had made all sorts of intimations about its presence. The Examiner correctly rejected the claims "as aggregations if he must assume that all the verbiage describes structure; but the fact is that the claim is merely indistinct, including immaterial things, repetitions of language, and indefinite expressions". (Underscoring supplied)

On appeal this court (265 Fed 1012) held

> "The rejection of the appealed claims is on the ground that they fail to point out invention. The statute requires an applicant to so formulate his claims that the experts of the Patent Office may understand definitely what they mean, and the invention must be so distinctly described as to be understood by one ordinarily skilled in the art to which the invention belongs."

Appellant's claim number 1 is clearly understandable by one ordinarily skilled in the art and is definite as to its meaning. There are no immaterial things, repetition of language or indefinite expressions.

The claim definitely sets out the invention in terms of structure and all the elements thereof are clearly and definitely inter-related. Certain functional statements are also in the claim which serve to give meaning to the claim and more clearly inter-relate the elements and their functions. Rather than confuse the claims, any allegedly prolix material serves only to clarify the inventive concepts involved therein.

No objection has been made to the claim that it fails to properly and clearly recite the structure of applicant's invention. In fact counsel for Defendant suggested at the trial that certain functional limitations could be eliminated from the claim leaving a proper structural claim. Appellant finds no case holding that where a claim clearly recites the structural elements and their structural relation in the combination, the claim must be stricken because of additional phrases expressing a functional inter-relationship of the elements.

The Claims Are Not Drawn To An Old Combination

All of the recited elements mutually contribute to effect a highly desirable clamping action for an outboard motor clamp. The vibrations are transmitted through the head, the clamp and the shank to the cross member. The inclusion of all the elements of the claims is proper under these circumstances in that they express the full utility of the structure. To lift the cross member and shank out of its environment would render any claim directed thereto, per se, a cold and lifeless group of words, the subject matter of which would have little, if any, utility. The clamp member, the head and any of the other elements of the claims are necessary elements to express this utility and give vitality and life to the claims. Appellee cited the Lincoln Engineering Company case (303 U. S. 545) as an example of old combination. In that case, however, the improved part, a multi-jawed coupler member, had separate utility in and of itself.

In the present instances, the elements of claim 1 (R. 2) are:

(1) a threaded shank having a cross member
(2) a clamp member having the shank threaded therethrough
(3) a clamp head secured upon the end of the shank opposite the cross member
(4) and an elastic highly resilient covering molded----

The rejection was stated by the Examiner to be based upon the patents to Kohler and Haller as showing "the combination of a clamping member, threaded shank and a handle means to be old". (R. 72)

The rejection ignores the coaction described supra (p. 5, 6) and depicted in the accompanying chart, between the cross member and the shank arising from the yielding of the resilient material embedding the same. There is a coaction between the elements by reason of the added covering of resilient material.

The Court of Appeals for the Third Circuit in dealing with the question of coaction between the various elements said:

> "We have not overlooked the suggestion of appellee's counsel that Campbell's conception and arrangement were merely of an aggregation of known elements, not amounting to a true combination, and that, therefore, he was not entitled to a patent for anything. This suggestion is based upon the allegation that each of the elements associated by Campbell does not qualify every other of them; but this is true only in the sense that each does not modify or change the characteristic mode of action, or method of operation of the others. In doing its appointed share towards effecting the single result achieved by the co-operation of all, each element acts, of course, according to the law of its own being; but, though of necessity so acting, it is still, none the less, combined with the others, and does "qualify" each and all of them, (not their distinctive methods of operation), in the sense that each is, by the co-operation of the others, capacitated to contribute, by acting in its own peculiar way, to the common end, which, without the co-operation of each and every other of the co-ordinated elements, it would be powerless to accomplish or advance." National Cash Register Co. et al v. American Cash Register Co. 53 Fed Rep 367, 371

CONCLUSION

In view of the new and unobvious results obtained by this invention, absence of prolixity in claim 1, and the coaction between the elements of the invention recited in the claims and which finds particular utility peculiar to this art, it is respectfully urged that judgment be awarded appellant.

Respectfully submitted,

ELWIN A. ANDRUS
Attorney for Appellant

BRIEF FOR APPELLEE AND APPENDIX

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

APPEAL No. 13969

ELMER C. KIEKHAEFER, APPELLANT

v.

ROBERT C. WATSON, COMMISSIONER OF PATENTS,
APPELLEE

APPEAL FROM THE JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

CLARENCE W. MOORE,
Solicitor, United States Patent Office,
Attorney for Appellee.

GEORGE C. ROEMING,
Of Counsel.

United States Court of Appeals
For the
District of Columbia Circuit

FILED NOV 29 1957

Joseph W. Stewart
CLERK

Appeal No. 13969

STATEMENT OF QUESTIONS PRESENTED

In the opinion of appellee, the questions presented for determination on this appeal are:

1. Was there a rational basis for the decision of the District Court that, on the evidence before it and in view of prior art handles, it was obvious to one skilled in the art and devoid of invention to provide, as specifically set forth in appellant's claims 1 and 2, a highly resilient covering molded about a prior art outboard motor clamp handle consisting of a shank portion and a crossmember extending transversely therethrough?

2. Was there a rational basis for the District Court's finding of no error in the holdings of the Patent Office tribunals, that in view of the patent to Kohler of record or the patent to Haller of record, claims 1 and 2 are unpatentable as improperly drawn to an old combination in an outboard-motor-unit of a clamp member, a threaded shank, and a handle means?

3. In view of all the evidence, was there a rational basis for the District Court's finding of no error in the holdings of the Patent Office tribunals that claim 1 is unduly prolix and therefore fails particularly to point out and distinctly claim the novel substance as is required by 35 U. S. C. 112?

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United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

APPEAL NO. 13969

ELMER C. KIEKHAEFER, APPELLANT

v.

ROBERT C. WATSON, COMMISSIONER OF PATENTS,
APPELLEE

APPEAL FROM THE JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

BRIEF FOR THE COMMISSIONER OF PATENTS

INTRODUCTION

This is an appeal from the judgment (J. A. 86) of the United States District Court for the District of Columbia dismissing the complaint (J. A. 1) in an action brought under 35 U. S. C. 145. In that action appellant, as the applicant in an application for patent (J. A. 48 *et seq.*) entitled "Outboard Motor Clamp," Serial No. 226,709, filed May 16, 1951, sought to have that Court authorize the issuance to him of a patent containing claims 1 and 2 (J. A. 2 and 3) of said application.

The District Court concurred with the Patent Office examiner and the Patent Office Board of Appeals in their refusal (J. A. 63, 71, and 76) of claims 1 and 2 as unpatentable over prior art (J. A. 85, Finding of Fact No. 15). The Court also found no error in the findings of the Patent Office tribunals that claims 1 and 2 are improperly drawn to an old combination (J. A. 85, Finding of Fact No. 17) and that claim 1 is unduly prolix (J. A. 85, Finding of Fact No. 16).

APPELLANT'S APPLICATION

The application in suit is a continuation-in-part of appellant's abandoned application Serial No. 772,343, for Elastic Hand Grip, filed September 5, 1947 (J. A. 49, paragraph 5). Cancelled claims 3 and 4 of the application in suit (J. A. 57 and 61) are identical with claims 23 and 24 of parent application Serial No. 772,343 (J. A. 58).

The application in suit discloses an outboard motor as shown in Figs. 1 and 2 (J. A. 55) having a clamp 7 and a clamp screw 9 (Figs. 1, 2, and 4, J. A. 56). The clamp screw at its outer end carries a transverse metal rod 13 extending through a bore in either a tight or loose fit. The rod 13 has applied thereto a generally resilient and elastic handgrip 14 in which is preferably embedded the entire rod and the adjacent portion of the shank. In the specification of the application, it is specifically stated (J. A. 51, fourth paragraph):

> "In the molding operation the handgrip 14 should bond to or grip the metal surfaces of the shank sufficiently to prevent rattling of a loose rod 13 therein. Also, the material of the handgrip 14 should be sufficiently resilient or

> elastic to yield to the movement required by a loose rod 13 in transmitting rotational forces in either direction to the shank without shearing of the material from the surface of the shank."

The specification also includes the following (J. A. 52):

> "The outer end of shank 10 should project from handgrip 14 to serve as a protection to the grip when resting the motor upon a dock, clamp down, as shown in Fig. 2.
>
> "Furthermore, the projecting end 15 of shank 10 serves to transmit the riveting blows to the shank or to support the shank solidly against blows employed in peening the extension 12 against the clamp head 11."

The exposed or projecting outer end 15 of the shank was set forth in claim 1 as filed (J. A. 52, last six lines) but was cancelled therefrom in the response (J. A. 60) to the first office action. That substance is not set forth in the claims at bar (J. A. 2 and 3).

THE PRIOR ART

The patent to Haller No. 2,455,578 (J. A. after 87) in Fig. 1 discloses and outboard-motor-clamp having a screw 9 with cross-pin 14 serving as a handle. The patent to Kohler No. 2,470,439 (J. A. after 87) in Fig. 1 discloses an outboard-motor-clamp having a screw 9 with a cross-pin serving as a handle. Each of the patents discloses all the outboard-motor-clamp structure positively recited in plaintiff's application claims 1 and 2 (J. A. 2 and 3) except the molded handgrip of resilient material (J. A. 84, Finding of Fact No. 3).

The patent to Morrell No. 2,116,707 (J. A. after 87) discloses a handle, specifically a door-knob, comprising a shank 5, a cross-member 6, and a mass 2 of porcelain or the like molded over the shank and the cross-member permanently to connect them without the use of a screw (Morrell, page 1, line 5; J. A. 84, Finding of Fact No. 4).

The patent to Gullborg No. 1,365,985 (J. A. after 87) discloses a handle comprising a shank 5, a cross-member 7 extending transversely through the shank, and a mass of suitable metal 10 molded or die-cast over the shank and cross-member *completely to embed them* and to *prevent them from moving relatively to each other* (Gullborg, page 1, lines 42 through 45; J. A. 84, Finding of Fact No. 5).

The patent to Rockwell No. 507,594 (J. A. after 87) discloses in Fig. 5 a valve-spindle having no screw threads or nuts (Rockwell, page 1, lines 90 and 91) and having a handle comprising a shank 2, a cross-member, extending transversely through the shank, and a head 4 molded over the shank and cross-member, the head consisting of a fibrous material, such as asbestos, thoroughly incorporated with a binder, such as a gum similar to dammar or shellac (Rockwell, page 1, lines 45 through 50; J. A. 84, Finding of Fact No. 6).

The patent to Stedman No. 1,936,775 (J. A. after 87) discloses a handle, namely a drawer knob, comprising a shank and a mass of rubber molded on said shank (Stedman, page 2, lines 11 through 30; J. A. 85, Finding of Fact No. 8).

The patent to Ravenshaw (J. A. after 87) cumulatively shows embedding in rubber.

Appellant in his own testimony admitted that, except for the molded handgrip of resilient material, all the structure positively recited in his claims was in public use prior to his improvement (J. A. 33, fourth paragraph; J. A. 38, lines 19 through 22; J. A. 85, Finding of Fact No. 9).

The Board of Appeals stated in its decision (J. A. 81, lines 13 through 15): "The use of resilient material for hand grips is widely known in many fields such as on bicycle handle bars, vacuum cleaner handles, lawn mower handles and on many other devices." The District Court in the second sentence of its opinion (J. A. 83) specifically agreed with this statement, thus making it the substance of judicial notice (J. A. 85, Finding of Fact No. 12).

STATUTES INVOLVED

35 U. S. C. 145. Civil action to obtain patent

An applicant dissatisfied with the decision of the Board of Appeals may, unless appeal has been taken to the United States Court of Customs and Patent Appeals, have remedy by civil action against the Commissioner in the United States District Court for the District of Columbia if commenced within such time after such decision, not less than sixty days, as the Commissioner appoints. The court may adjudge that such applicant is entitled to receive a patent for his invention, as specified in any of his claims involved in the decision of the Board of Appeals, as the facts in the case may appear and such adjudication shall authorize the Commissioner to issue such patent on compliance with the requirements of law. All the expenses of the proceedings shall be paid by the applicant.

35 U. S. C. 132. Notice of rejection; reexamination

* * * No amendment shall introduce new matter into the disclosure of the invention.

PATENT OFFICE RULES INVOLVED

83. *Content of drawing.* The drawing must show every feature of the invention specified in the claims. * * *

111. Reply by applicant. * * *

(b) In order to be entitled to reexamination or reconsideration, the applicant must make request therefor in writing, and he must distinctly and specifically point out the supposed errors in the examiner's action; the applicant must respond to every ground of objection and rejection in the prior Office action (except that request may be made that objections or requirements as to form not necessary to further consideration of the claims be held in abeyance until a claim is allowed), and the applicant's action must appear throughout to be a bona fide attempt to advance the case to final action. The mere allegation that the examiner has erred will not be received as a proper reason for such reexamination or reconsideration. * * *

116. Amendments after final action. (a) After final rejection or action (rule 113) amendments may be made canceling claims or complying with any requirement of form which has been made, and amendments presenting rejected claims in better form for consideration on appeal may be admitted; * * *.

APPELLANT'S CLAIMED IMPROVEMENT

The specific improvement over the handle elements of the prior clamps of Kohler, Haller, and those of the same type previously in public use consists of the addition of a highly resilient covering in which are embedded those handle elements (J. A. 15, lines 9 through 13). This improvement is defined in varying scope in appellant's claims 1 and 2.

SUMMARY OF ARGUMENT

1. Where the prior art includes rubber and rubber covered handles; and Morrell's and Gullborg's handles comprise a shank, a cross-member inserted therethrough, and a material molded about the shank and cross-member to hold the elements against relative movement; no invention is involved in molding a rubber cover about the shank and cross-member of prior art clamps of the type of Kohler and Haller to lock those elements against relative movement and rattling and to provide a comfortable handgrip; and therefore claims 1 and 2 are unpatentable.

2. Claims 1 and 2 in view of each of the patents to Haller and Kohler improperly recite an old combination in an outboard-motor-clamp unit of a clamp member, a threaded shank, and a handle means.

3. Claim 1 is objectionably prolix and fails to point out and distinctly claim the novel substance as is required by 35 U. S. C. 112.

ARGUMENT

Basis of finding that claims do not set forth invention over prior art

Each of the Kohler patent and the Haller patent discloses, and appellant's testimony admits prior public use of, all the structure of the claims except the resilient material or rubber cover. The Stedman patent discloses the use of rubber for handles. The use of resilient material for handgrips is widely known in many fields such as on bicycle handle bars, vacuum cleaner handles, lawn mower handles, and on many other devices. Each of the Morrell patent and Gullborg patent discloses a handle in which a shank and cross-bar therethrough are held against relative movement by a handgrip material molded thereabout. It is submitted that the examiner (J. A. 72, last two lines, and 73), the Board of Appeals (J. A. 81, lines 13 through 22), and the District Court (J. A. 83, first sentence) on the records respectively before them were all individually correct in their own respective statements of reasons for finding no invention defined in appellant's claims. In this 35 U. S. C. 145 action, appellant's burden is primarily to show that in view of evidence not before the Board of Appeals or because of clear error in the decision of the Board, he is entitled to patenting. Accordingly, a particularly strong *prima facie* case of lack of error is made out where, as here, there is no necessity to amplify or explain the

Board's own strong statement of its reasons for finding no invention over the prior art, as follows (J. A. 81, lines 13 through 22):

> "The use of resilient material for hand grips is widely known * * *. This being so, rubber hand grips can be used in connection with any hand grip without the exercise of invention. It is, therefore, our opinion that it would not require invention in view of Gullborg, Morrell or Rockwell to embed the transverse rod and the adjacent portion of the shank of either Haller or Kohler in a resilient rubber covering in order to retain the transverse member in position relative to the shank and at the same time provide a resilient hand grip.
>
> "After careful consideration of appellant's arguments, we agree with the Examiner that the appealed claims do not represent a patentable advance over the prior art."

Hereinafter, it will be demonstrated that the findings of the Board of Appeals as stated in the above quotations and the Findings of Fact Nos. 10 and 13 through 15 of the District Court (J. A. 85) are consistent with all the evidence pertinent to the issue of invention raised by appellant's claims 1 and 2.

APPELLANT'S NON-ANALOGOUS ART CONTENTION

Appellant at page 10, paragraph 3 of his brief refers to the patents other than Kohler and Haller as "non-analogous art." No argument is offered that any of the patents are from arts remote or non-analogous to a degree such that, as in *In re Reichel,* 23 CCPA 1293, 84 F. 2d 221, the reliance thereon by the Patent Office tribunals to deny allowance of the claims in issue is unwarranted. Appellant, however, does, in the above-indicated paragraph, refer to statements by the trial court (J. A. 19, 20) as indicating that the patents other than Haller or Kohler are from non-analogous arts. However, on March 21, 1957, when the findings of fact were presented, the lower court specifically denied a finding that any patents involved are from non-analogous arts and explained that the pertinent comments at the trial did not involve the reaching of conclusions (Appellee's Appendix 32).

All of the patents relied on by the Patent Office in denying appellant's claims involve some kind of handle. Each of Haller and Kohler shows a handle for the clamp of an outboard motor. Morrell's doorknob, Stedman's knob for furniture, Ravenshaw's bicycle handle, Rockwell's handle (J. A., after 87, Rockwell patent, page 1, lines 75 to 81) for a valve, and Gullborg's handle for adjusting "any desired mechanism" (J. A., after 87, Gullborg patent, page 1, lines 12 and 29 through 31) are all handles of some kind. Appellant's distinction over the prior art is described in his application (J. A. 51 and 52) as the "handgrip 14." Appellant indicated in his testimony (J. A. 35, seventh Q. and A.) that he considers his improvement lies in a handle. While the application at bar is entitled "Outboard Motor Clamp" (J. A. 49), the parent application, Serial No. 772,343, of which this application is a continuation-in-part, was entitled "Elastic Hand Grip" (J. A. 49, paragraph 5). Appellant's disclosed improved handle (J. A. 85, Findings of Fact 10 and 11, and J. A. 83, paragraph 2) and the handles of all the references relate to the same art, namely that of handles. *In re Raleigh,* 20 CCPA 751, 62 F. 2d 200; *In re Kylstra,* 24 CCPA 938, 87 F. 2d 487. As the examiner and the Board of Appeals have noted (J. A. 72 and 79), handles have attained a separate status in the arts such that they are specially classified in the Patent Office in Class 16, Subclass 118. The patent to Gullborg illustrates the independence of the handle art in its statement at lines 29 through 31 that the disclosed handle is for the purpose of adjusting "any desired mechanism or for any other desired purpose." In *Whiteman* v. *Mathews,* C. C. A. 9, 216 F. 2d 712, 717, where expert testimony established that the functions and uses of a thrust collar were within the field of common knowledge possessed by all skilled mechanics, the Court held that the disclosures of use of such thrust collars in the fan and propeller arts could not be ignored in considering whether a patent to a cement floor finisher was valid. Similarly here, where the District Court took judicial notice that handgrips or handles are widely known in many fields (J. A. 83 and 85, Finding of Fact No. 12), the disclosures of specific handles in use in the fields of the patents other than Haller and Kohler were proper references. See also *In re O'Connor,* 34 CCPA 1055, 161 F. 2d 221, and citation thereof in *Allied Wheel Products, Inc.* v. *Rude,* C. C. A. 6, 206 F. 2d 752, 755.

It is submitted that there has not been shown non-analogousness which would exclude the patents other than Kohler and Haller from consideration on the issue of patentability of the claims at bar.

SIGNIFICANCE OF CLAIMED COACTION NOT SHOWN IN ANY REFERENCE PATENT

Appellant in his brief before this Court (pages 4, 5, and 9) for the first time in the history of his application emphasizes as an important feature of his improved handle a specific coaction of a specific form of his elements 10, 13, and 14 which coaction is not illustrated in Fig. 4 or any other figure of the application drawings (J. A. 55 and 56) but which is described in the specification (J. A. 51, fourth paragraph, second sentence) as follows:

> "Also, the material of the handgrip 14 should be sufficiently resilient or elastic to yield to the movement required by a loose rod 13 in transmitting rotational forces in either direction to the shank without shearing of the material from the surface of the shank."

Additional disclosure of this feature in varying specificality is found in the original claims (J. A. 53), particularly in claim 1 in the terminology:

> "said covering being tightly bonded to the body of said shank and to said cross member * * * and yielding under high manual tightening forces applied thereto to permit a loose cross member to transmit the rotary tightening forces to the shank without rupture of the cover * * *."

At page 9 of appellant's brief the discussion relates to a drawing which appears at the end of the brief and which illustrates the above-quoted portion of the specification description. No such drawing was before the tribunals of the Patent Office and no such drawing was placed in evidence at the trial in the District

Court. In fact, at the trial in the District Court no testimony was taken as to this feature and it was not pointed out to the Court in any argument of counsel. Objection is taken to this drawing insofar as it is claimed to represent dimensions and proportions (brief, page 9, paragraph 2) not supported by the application disclosure or by evidence offered at the trial. However, insofar as they fairly illustrate or explain to this Court what is disclosed in the above-quoted portions of the specification and claim 1, no objection is taken either to the drawing or to paragraphs 1 and 3 of page 9 of appellant's brief.

The completely new emphasis on the coaction of elements illustrated in the drawing in appellant's brief is accompanied by the contention that this coaction is novel; but there is no demonstration that this emphasized coaction is a critical distinction over the prior art. Such contention could not effectively be made on the record before this Court.

The alleged new coaction was never called to the attention of the examiner or the Board of Appeals or the District Court. At the trial, despite the repeated requests of the Court that appellant's counsel in his opening statement and appellant on the witness stand point out what they considered the alleged invention to be (J. A. 12–15, 30), the alleged new coaction here emphasized for the first time was not even mentioned (see also J. A. 41–44). However, applicant in his testimony (J. A. 30, fifth Q. and A., and J. A. 37, fourth paragraph, second sentence) took a completely different position when he told the Court that he considered another structural feature, namely, the projection of the outer end 15 throught the hand-grip 14 (J. A. 52, paragraphs 1 and 2; J. A. 56, Fig. 4), to be a part of his invention, despite the fact that the recitation of that feature in claim 1, as filed (J. A. 52, last six lines), was cancelled from that claim (J. A. 60, direction to cancel matter in lines 14 to 18 of claim 1) in response to the first Patent Office action (J. A. 59) and the feature is not recited in either claim at bar (J. A. 2 and 3). On these facts alone it is clear that the feature now stressed for the first time could hardly be critical.

This latter feature is described in the specification (J. A. 51, paragraphs 3 and 4) without any contention of criticality. During the prosecution of appellant's application in the Patent Office, this feature was not considered sufficiently important to warrant illustration of it in the application drawings despite the requirement of Patent Office Rule 83 that the "drawing must show every feature of the invention specified in the claims".

The use of plastics, particularly colored plastics (J. A. 30, last Q. and A. and J. A. 31, first and second Q. and A.), is not disclosed in the specification. Also no specific examples of special types of rubber or synthetic rubber "having the desired resiliency and bonding characteristics" (J. A. 51, paragraph 3, last sentence) are disclosed. However, appellant testified (J. A. 34, fifth and sixth complete Q. and A.) that after tests of his handles, no changes were necessary in the first rubber used for a hand-grip, but that changes in the composition of the plastic materials as first used were required. Thus it appears from appellant's own testimony that when a form of rubber ordinarily used in widely known hand-grips is chosen for use as the moldable material in a handle such as that of either Morrell or Gullborg, the coaction emphasized at page 9 and in the drawing of appellant's brief will be inherent in the resulting structure if the pin fits loosely in the shank-bore. On the other hand, it appears that insofar as applicant's claims are intended to cover the use of plastics, particularly colored plastics, the complete lack of disclosure of those plastics which would serve appellant's purpose (as distinguished from those which he testified did not serve his purpose) leaves this feature, as now emphasized, unsupported by adequate disclosure. A feature inadequately disclosed cannot be the basis of patentability.

It is further noted that in the discussion of this same coaction feature at page 9, paragraph 2, of appellant's brief, reference is made to "maximum permissible diameter of bore in the shank" and "minimum permissible diameter for the cross-member * * * under the required manufacturing tolerances for these dimensions". If the emphasized feature is a significant part of the invention, it is further inadequately supported by a disclosure of the above-indicated dimensions and tolerances, and on that ground cannot be the basis for patentability.

As to this feature, both claims at bar are indefinite as to whether they would or would not be infringed by a structure which has the cross-pin embedded in a rubber handgrip but in which the cross-member fits sufficiently tightly in its bore that the coaction described in the specification for a loose cross-member (J. A. 51, paragraph 4, as illustrated in the drawing in appellant's brief) would not be present. Certainly, if appellant were granted a patent with the claims at bar and wanted to protect his monopoly, he would as a practical matter have to charge infringement against every nonlicensed product having the structure of Fig. 4 of his application (J. A. 56) regardless of whether he did or did not know positively whether the cross-member fitted loosely or tightly in its bore. On this point, attention is particularly directed to the following statement in appellant's brief (page 10, first paragraph):

> "Thus in assemblies which have a looseness of the cross-member in the bore, there is a definite coaction between the elements of the combination as shown here. *This coaction is not present where the cross-member is permanently tight in the bore;* but as explained previously, manufacturing tolerances are such that some looseness is present *in some percentage* of the assemblies, and these definitely need this coaction in order to make them commercially acceptable" (Emphasis added).

Neither the application specification nor appellant's testimony at the trial states what are the permissible manufacturing tolerances for the end-pin and bore, and, under those tolerances, what percentage of the pins would be loose in the bores to the extent of the emphasized feature of the drawing in the brief.

There is no evidence in the record that this percentage would be as high as five percent. It cannot be seriously maintained that the feature illustrated in the drawing of the brief is a critical part of appellant's invention when it is not shown that even five percent of the structures which would be charged with infringement could be proved infringed by disassembling them to find out whether the cross-member is tight or loose.

It is submitted that for all the foregoing reasons appellant has no significant claimed distinction over the prior art in the coaction illustrated in the brief drawing.

SIGNIFICANCE OF EVIDENCE OF ADVANTAGES IN USE OF APPELLANT'S HANDLE

At pages 3 and 4 of appellant's brief and in appellant's testimony (J. A. 36, last Q. and A.; J. A. 29, second paragraph; J. A. 31, third paragraph; J. A. 32, 34 and 35; and J. A. 36, last Q. and A.), many advantages of what applicant considers his invention are enumerated. Appellant admitted (J. A. 34, seventh complete Q. and A., and J. A. 35, seventh Q. and A.) that most of these advantages were not apparent to him at the time he arrived at the construction disclosed in his application. His chief reasons for developing the structure are stated as follows (J. A. 35, seventh Q. and A):

> "* * * We were after a handle that eliminated the noise, a handle that was permanent, and a handle that complemented the smooth stream-lined design that came into being."

At the beginning of his specification as filed, appellant states various advantages of his structure. Those advantages enumerated in appellant's brief, in appellant's testimony, or added to the specification after filing (J. A. 60, first paragraph), but which were not originally disclosed in the specification and not apparent to appellant at the time he developed his structure, cannot be relied on here to bolster his contention that the development of his improved handle involved patentable invention. *Abbott* v. *Coe,* 71 App. D. C. 195, 109 F. 2d 449; *In re Dalzell et al.,* 35 CCPA 1024, 166 F. 2d 834.

The disclosed advantage of eliminating rattle (J. A. 49) is inherent in the structural concepts of each of the Morrell and Gullborg patents. The disclosed advantages (J. A. 50, first two paragraphs) derived from having the end 15 of shank 10 project from hand-grip 14 (which structure is described in the specification at J. A. 52, first two paragraphs) are immaterial to the claims at bar because they do not set forth the projecting end structure.

Thus appellant has disclosed in his specification no advantages pertinent to the structure of the claims which are not inherent in the structural concepts of the Morrell and Gullborg patents.

SIGNIFICANCE OF EVIDENCE OF COMMERCIAL SUCCESS

Appellant testified at length to facts tending to show commercial success and copying of a structure disclosed in Fig. 4 of his application (J. A. 56) *and including the end 15 projecting through the hand-grip* (J. A. 30, fifth Q. and A., and J. A. 37, fourth paragraph, second sentence). There is nothing in appellant's testimony which indicates that any part of that testimony tending to show commercial success and copying was directed to a structure which does not include the end 15 projecting through the hand-grip. Quickness and cheapness of manufacture are major factors in commercial success. Appellant testified specifically (J. A. 37, paragraph 4) that quickness and cheapness of manufacture of the structure which he considers to be his improvement is achieved by the specific manipulation of the projecting end in riveting the clamp parts together in the manner described in the specification (J. A. 52, paragraph 2). But neither of the claims at bar sets forth the projection of the shank-end through the hand-grip. Evidence of commercial success and copying not shown to be directly related to the combination of elements recited in the claims and not shown to be not related to elements other than those recited in the claims is irrelevant to the question of patentability of those claims. *Derman* v. *Stor-Aid, Inc.* (CCA 2) 141 F. 2d 580; *Foxboro Co.* v. *Taylor Instrument Co.* (CCA 2) 157 F. 2d 226; *Marconi Wireless Telegraph Co. of America* v. *United States,* 320 U. S. 1, 36. Moreover, appellant himself testified (J. A. 35, seventh Q. and A.; J. A. 37, second paragraph; J. A. 31, first three paragraphs) that the factors of design, color, and general appearance were important to the customers in the outboard motor field. There is no clear evidence that any commercial success and copying of appellant's handle as actually put on the market was not related primarily to the design features rather than to the mechanical utility features. *Murray-Ohio Mfg. Co.* v. *E. C. Brown Co.* (CCA 6) 124 F. 2d 426; *Foxboro Co.* v. *Taylor Instrument Co., supra.* See also *Circle S Products Co.* v. *Powell Products, Inc.* (CCA 7) 174 F. 2d 562; *Hueter* v. *Compco Corp.* (CCA 7) 179 F. 2d 416.

Regardless of the degree of commercial success shown and its relevancy to the substance of the claims at bar, this is clearly a case in which evidence of commercial success cannot overcome plain absence of invention. *Union Metal Co. et al* v. *Ooms,* 81 U. S. App. D. C. 76, 154 F. 2d 857.

SIGNIFICANCE OF EVIDENCE OF LONG FELT NEED AND OF FAILURE OF OTHERS TO PRODUCE APPELLANT'S IMPROVEMENT

At page 8 of his brief, appellant contends:

> "In the present case, there had been a *long standing problem* in the construction of outboard motor clamps which resulted in many complaints (R. 32). The *present combination* eliminated these complaints (R. 34, 35).
>
> "The District Court completely ignored these important factors pointing toward invention and made no findings thereon." (Emphasis added.)

The trial court is not required to make findings on all the facts presented. If the findings are sufficient to support the ultimate conclusion of the court, they are sufficient. *Schilling* v. *Schwitzer-Cummins Co.,* 79 U. S. App. D. C. 20, 142 F. 2d 82; *Klimkiewicz* v. *Westminster Deposit and Trust Co.,* 74 App. D. C. 333, 122 F. 2d 957. On the testimony before the trial court, all of which relates to the structure including the projecting end 15 not recited in the claims at bar, Finding of Fact No. 11 (J. A. 85) is adequate. The above quotation from applicant's brief to the contrary, it was not shown by evidence that it was "the present combination", namely, that recited in the claims, which eliminated the complaints and *commercially* solved the problem stated in appellant's patent application specification.

The reference to the "long standing problem" is a mere suggestion of the more complete contention of appellant's counsel at the trial (J. A. 8) that appellant solved a problem which had existed for forty years in the art and which during that period had defied solution by those skilled in the art. No evidence was adduced to support this contention. Appellant testified that he entered the outboard motor field in 1939 (J. A. 26) and that during World War II his corporation manufactured outboard motors only on a minor scale. He testified to no positive facts showing a desire or efforts by other outboard motor manufacturers to solve the problem of rattle in the cross-pins of the old-type clamp-handles at a time prior to appellant's development of his handle. At the trial appellant's counsel admitted that there "was a reason in the old days for making the cross-pins loose", namely, to allow the user to slide the pin to a position where it extended only on one side of the shank to give greater leverage (J. A. 14, sixth paragraph). While appellant testified that he had received complaints about the old type handle, he did not testify as to the specific time when such complaints became sufficiently numerous to induce his own efforts to improve the old-type handle. Appellant testified that the extensive use of outboard motors by women was brought about by the introduction of the electric starter (J. A. 31, third paragraph, and J. A. 34, seventh complete Q. and A.) and that it was primarily the use by women which created a demand for a more comfortable handgrip. Appellant further testified as to the old-type handle on a clamp screw (J. A. 30, second paragraph):

> "In the *modern* outboard motor, where quietness is in great demand, this type of clamp screw *became out of date* because of its rattling under high frequency vibration, and it stood out like a sore thumb" (Emphasis added).

Appellant further testified (J. A. 35, seventh Q. and A.):

> "We were after * * * a handle that complimented the smooth stream-lined design that came into being."

All the foregoing clearly demonstrates complete lack of proof of a long standing problem which others in the art were trying unsuccessfully to solve. It further demonstrates positively that not until shortly before the filing of appellant's parent application in 1947 was there any pressing reason to offer the market a higher quality handle for the outboard motor clamp.

As to appellant's testimony as to his own prior attempts to eliminate rattle in the handle (J. A. 33, last Q. and A.), that testimony indicates clearly that solution of only the problem of eliminating rattle offered no difficulty. One reason for appellant's rejection of his own prior solutions was that they "looked very crude", which again emphasizes the design and appearance aspect of his commercially used handle. Another reason for not putting appellant's prior solutions on the market is that they were too expensive. But the feature of appellant's commercially used structure which enables it to be made cheaply is the projecting end 15 (J. A. 37, fourth paragraph) which is not set forth in the claims at bar. Since those claims set forth neither an improved design for a handle nor a handle which has the essential features which enable it to be cheaply made, appellant's testimony as to his prior efforts, which were unsuccessful only because of lack of improved design and lack of inherent cheapness, is irrelevant to the issue of the patentabilty of the claims at bar.

FINDING OF NO ERROR IN HOLDING OF OLD COMBINATION

The holdings of the examiner (J. A. 63, 72) and the Board of Appeals (J. A. 79, 80) that the claims at bar are unpatentable as drawn to an old combination and therefore claim more than appellant's improvement were found by the District Court to involve no error (J. A. 85, Finding of Fact No. 17). Those holdings were based on *Lincoln Engineering Co.* v. *Stewart-Warner Corp.,* 303 U. S. 545, and are self-explanatory. See also *American Steel and Wire Co.* v. *Coe,* 70 App. D. C. 138, 105 F. 2d 17, where this Court relied on this ground even though it was not pleaded. It is submitted that there was a rational basis for Finding of Fact No. 17.

FINDING OF NO ERROR IN HOLDING OF UNDUE PROLIXITY

In the first Patent Office action (J. A. 59), the examiner rejected claim 1 as filed (J. A. 52, 53) as being prolix. Claim 2 as filed (J. A. 53) and added concise claims 3 and 4 (J. A. 57 and 58) were not rejected on that ground. Claims 3 and 4 were rejected on prior art. In response to that action (J. A. 60) appellant cancelled claims 3 and 4. He also cancelled from lines 14 through 18 of claim 1 as filed the clauses "said covering leaving the outer end of the shank exposed for transmission of riveting forces for securing said clamp head in place and for protecting the molded material when the outboard motor is laid clamp down upon a deck or the like" which clauses are supported by the specification as filed (J. A. 52, paragraphs 1 and 2) and the structural substance of which was stated by appellant at the trial (J. A. 30, fifth Q and A) to be a part of the invention as to which he was testifying. That structural substance had not been set forth in claim 2 as filed. In further response to the first rejection on the ground of prolixity, appellant amended the specification at page 5, line 22 (J. A. 60), to set forth an additional advantage not included in the original specification or claims and not inherent in the substance thereof. He also set forth this advantage in terminology added at the end of both claims 1 and 2 (J. A. 60, 61) to produce the claims at bar (J. A. 2, 3,). Since an advantage on which an applicant relies to be probatively effective must be disclosed in his specification as filed (*Abbott* v. *Coe,* 71 App. D. C. 195, 109, F. 2d 449; *In re Dalzell et al.,* 35 CCPA 1024, 166 F. 2d 834; *In re Stewart,* 42 CCPA 937, 946, 222 F. 2d 747), it follows that the foregoing belated insertion in the specification and claims is new matter in violation of the statute, 35 U. S. C. 132, last sentence. In the remarks accompanying the amendment (J. A. 61 and 62), appellant ignored the requirement of Rule 111 (b) that "applicant must respond to every ground of objection and rejection in the prior Office action" and made no comment whatever in response to the initial rejection of claim 1 on the ground of prolixity. The examiner then finally rejected both claim 1 and expanded claim 2 as unduly prolix (J. A. 63) and clearly stated his reasons. Thereupon, appellant made no attempt under Patent Office Rule 116 to avoid this rejection of claim 1 by proposing a remedial amendment to that claim, but proceeded directly to appeal. On appeal, the examiner again stated his reasons on this issue (J. A. 72). The Board, on this issue of prolixity, affirmed the examiner's rejection of claim 1, but reversed as to claim 2 (J. A. 78 and 79). The District Court found no error in the Board's affirmance on this ground (J. A. 85, Finding of Fact No. 16). In this case, as in *In re Duncan,* 49 App. D. C. 372, 265 Fed. Rep. 1012, appellant "has little room for complaint; since his attention was called to the condition of his claims at every stage of the proceeding." See also *Ex parte Duncan,* 276 O. G. 207, 1920 C. D. 36, 39. Where, as here, undue prolixity is achieved by addition to the claims of new matter, it is particularly objectionable since it is in violation not only of 35 U. S. C. 112, second paragraph, but also of 35 U. S. C. 132, last sentence. Accordingly, it is submitted that there was a rational basis for Finding of Fact No. 16 (J. A. 85).

In a patent infringement suit, the court may *sua sponte* hold a patent invalid on its face where that defense is not pleaded. *Brown et al.* v. *Piper,* 91 U. S. 37, 42; *Slawson* v. *Grand Str. R. R. Co.,* 107 U. S. 649, 652. It follows that in an action under 35 U. S. C. 145 the court may find unpatentability on the face of the application where that defense is not pleaded. In *American Steel and Wire Co.* v. *Coe, supra,* the lower court was held properly to have relied on a ground not pleaded and not appearing on the face of the application. Moreover, on appeal, if the ruling of the lower court is correct, it is immaterial what reason was stated and the ruling will not be reversed. *McMahon* v. *Matthews,* 48 App. D. C. 303; *Levin* v. *Coe,* 76 U. S. App. D. C. 347, 132 F. 2d 589. Since the additions to claims 1 and 2 after filing of appellant's application (J. A. 60 and 61) have been demonstrated above to include new matter in violation of 35 U. S. C. 132, it follows that this Court could find the dismissal of the complaint by the lower court to be correct on this ground alone.

NO REVERSIBLE ERROR

Appellant has failed to demonstrate any reversible error such as was found in the decision of the trial court in each of the cases of *Levin* v. *Coe, supra; Broderson* v. *Marzall,* 90 U. S. App. D. C. 78, 194 F. 2d 138; *Poulsen et al.* v. *Coe,* 73 App. D. C. 324, 119

F. 2d 188; and *L-O-F Glass Fibers Co.* v. *Watson,* 97 U. S. App. D. C. 69, 228 F. 2d 40. Accordingly, the judgment of the District Court in this action should be affirmed. *Abbott* v. *Coe, supra; Esso Standard Oil Co.* v. *Sun Oil Co.,* 97 U. S. App. D. C. 154, 229 F., 2d 37; *Dyer* v. *Coe,* 75 U. S. App. D. C. 125, 125 F. 2d 192.

CONCLUSION

All the claims on appeal, it is submitted, were properly refused to appellant on each of the grounds that they define no invention over the prior art and that they are drawn to an old combination. It is submitted that claim 1 was also properly refused on the ground of undue prolixity. Accordingly, it is further submitted that the judgment appealed from was correct and should be affirmed.

Respectfully submitted,

CLARENCE W. MOORE,
Solicitor, United States Patent Office,
Attorney for Appellee.

GEORGE C. ROEMING,
Of Counsel.

NOVEMBER 1957.

TRANSCRIPT OF PROCEEDINGS IN OPEN COURT FOR ADOPTION OF FINDINGS OF FACT

(The following occurred as a preliminary matter in The United States District Court for the District of Columbia, before Honorable Alexander Holtzoff, on Thursday, March 21, 1957, at 1:45 P. M., in the case of Kiekhaefer vs. Watson, Civil Action No. 2352–55.)

The DEPUTY CLERK. Are there any preliminary matters to come before the Court?

Mr. ROEMING. Your Honor, in the case of Kiekhaefer vs. Watson which involved an improved handle for an outboard motor clamp, presenting findings of fact, I call Your Honor's attention particularly to findings of fact 16 and 17. In your decision as stated from the Bench, no comment was made on the Board's holding as to old combination and undue prolixity. I have presented the findings on the basis of no error.

The COURT. That is correct. I think really, if I said something about it, I would have said this.

Do you wish to be heard:

Mr. KEMON. Yes, if it please the Court. We were at issue on those particular findings. It was Mr. Andrus' impression and mine that you had narrowed the issues in this case to one solely of invention and that you had overruled the other issues, and we prepared our own findings accordingly.

The COURT. Well, I think 16 and 17, being in negative form, is entirely proper.

Mr. KEMON. Your Honor, one other point, if you will recall you ruled specifically on the question of nonanalogous art as to all the references which were offered, with the exception of two, and we thought that should be incorporated in the findings, in each of the separate findings.

The COURT. No, I did not make any ruling of that kind. I asked some questions along those lines without reaching any conclusion.

I think these findings are in proper form.

(Thereupon the instant hearing was concluded.)

I, Ernest Markwalter, official court reporter of The United States District Court for the District of Columbia, do certify that the foregoing is the official transcript of the proceedings had in this matter of Kiekhaefer vs. Watson, on March 21, 1957, Civil Action No. 2352–55.

ERNEST MARKWALTER
Ernest Markwalter
Official Court Reporter.

U. S. GOVERNMENT PRINTING OFFICE: 1957

REPLY BRIEF FOR APPELLANT

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

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For the
District of Columbia Circuit
FILED
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Joseph W. Stewart
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No. 13,969

ELMER C. KIEKHAEFER,

Appellant

v.

ROBERT C. WATSON,
COMMISSIONER OF PATENTS,

Appellee

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

ELWIN A. ANDRUS
Milwaukee, Wisconsin

Attorney for Appellant

Of Counsel:

Kemon and Palmer
Solon B. Kemon
1331 G St., N.W.
Washington 5, D.C.

Robert I. Thiel, Printer
Washington, D. C.
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UNITED STATES COURT OF APPEALS
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REPLY BRIEF FOR APPELLANT

The brief for Appellee overlooks certain important parts of the record:

THE DRAWING ACCOMPANYING APPELLANT'S BRIEF DOES NOT INTRODUCE "NEW MATTER"

On page 6 of its brief, Appellee refers to 35 U.S.C. 132 which prohibits the introduction of new matter into a disclosure, and to Patent Office Rule 83 requiring that the drawing show every feature of the invention claimed.

On pages 12-17 of the Appellee's brief, counsel for Appellee argue that the drawing contained in Appellant's brief or the feature illustrated by it constitutes some sort of "new matter" although on page 13 of Appellee's brief counsel for Appellee admit that,

> "...insofar as they fairly illustrate or explain to this Court what is disclosed in the above portions of the specification and claim 1, no objection is taken either to the drawing or to paragraphs 1 and 3 of page 9 of appellant's brief."

The coaction between the elements as called for in claim 1 and also in claim 2, and illustrated in the drawing accompanying Appellant's brief, is inherent in the structure and cannot be "new matter" as charged by Appellee. The very fact that this coaction is recited in both claims under consideration is conclusive on this point.

The drawing of the application illustrates the structure claimed. Rule 83 does not require that the drawing illustrate the effect of the coaction of the parts. The "features" of an invention are disclosed in structure. Coaction is inherent from the structure.

Counsel for Appellee misses the point of this coaction in arguing on pages 15 to 17 that manufacturing tolerances can be ignored and are of no consequence. Manufacturing tolerances are one of the most important factors of engineering and manufacture in our industrial world. It is due to the necessity for such tolerances that many problems arise.

In the present instance it is not important whether 5% of the structures would have loose cross members in the shank or whether it is only a fraction of 1%. Any such looseness that inherently results from manufacturing tolerances must either be taken care of or there will be dissatisfied customers. Furthermore, again due to tolerances, some cross members will be on the verge of looseness when assembled and will become loose in usage, although it might be said that the looseness cannot be detected when the parts are first assembled. Such structures will also give rise to dissatisfied customers of outboard motors, unless the looseness is adequately provided for.

The present invention as claimed, and as illustrated in the drawing accompanying Appellant's brief accommodates any such looseness of the parts, and as stated in the testimony of Mr. Kiekhaefer, there have been no dissatisfied customers since his company began the use of the claimed structure. (JA-34)

The fact that some, and even 95% of the assemblies would not need the coaction here considered, does not detract from the need where it exists.

THE DISTRICT COURT CONFLICT ON NON-ANALAGOUS ART

At the trial of this case and during the opening statement of counsel for Appellee the Court let it be known to both parties that it considered all the art except Haller and Kohler to be non-analagous.

On page 19 of the Joint Appendix, the Court stated with reference to the Morrell patent:

> "The Court: Well, I do not think there is any analogy between a doorknob and a clamp of an outboard motor. Is there?
>
> "Mr. Roeming: But in this situation, as far as this clamp is concerned, we have merely a handle, and a doorknob is merely a handle.
>
> "The Court: Yes, I know, but you might look at any number of doorknobs and if you were working on an outboard motor, it would not give you an idea how to change the outboard motor, would it?"

Again on page 20:

> "Mr. Roeming: ...In view of the question raised by Your Honor, I would assume that you are raising a question as to whether this is analogous art.
>
> "The Court: Yes; I do not think it is analagous. I do not see any analogy between a doorknob and a clamp for an outboard motor. I think that is going pretty far for an analogy."

The District Court also represented to counsel that it considered the Rockwell patent to be non-analogous art. On page 22 of the Joint Appendix the following statements appear with respect to this reference:

> "The Court: Of course, that is in a different art, isn't it?
> "Mr. Roeming: Yes, it is in a different art.
> "The Court: And hardly an analogous art."

No testimony was submitted with regard to these references. The only references referred to in the testimony were Haller and Kohler (J.A. 38). No comment was made on the non-analogous references by either counsel in their closing statements (JA 41-48) and the District Court made no reference to them in its Opinion (J.A. 83).

Thereafter, in the findings drafted by Counsel for Appellee (J.A. 84-85) each of the non-analogous references is summarized as though it were analogous. This has been utilized by counsel for Appellee in its brief before this Court (see Appellee's brief, pages 4 and 5).

Again the Appellee's brief (pages 9-11) contains a section in which it points out that the Court refused a finding of non-analogous art. The language of the District Court is set out in Appellee's Appendix accompanying its brief (p. 32) in which it appears that when counsel for Appellant submitted a proposed finding on non-analogous art, the Court stated:

> "The Court: No, I did not make any ruling of that kind. I asked some questions along those lines without reaching any conclusions."

There is a considerable amount of futility in trying a case in which during trial the Court definitely indicates that certain art is non-analogous and both counsel thereupon complete the trial without reference to such art, and then to find the Court approving findings contrary to its representation. This lack of consistency is not improved by having counsel for Appellee taking advantage of the findings and relying thereon on this appeal.

THE DISTRICT COURT CONFLICT ON "OLD COMBINATION"

Appellee's brief states (p. 23-24): "It is submitted that there was a rational basis for Finding of Fact No. 17." This finding reads: "No error is found in the affirmance by the Board of Appeals of the examiner's holding that claims 1 and 2 are unpatentable as improperly drawn to Haller's or Kohler's old combination in an outboard-motor-unit of a clamp member, a threaded shank, and a handle means."

The District Court indicated to counsel that it did not want to try this issue and directed that only the issue of invention be tried.

When counsel for Appellee, in his opening statement ahead of the trial, referred to this defense the following colloquy occurred between the Court and counsel (J.A. 17):

> "Mr. Roeming: If Your Honor will permit, I would like to illustrate in terms of the art before us exactly how this doctrine of old combination works.
>
> "The Court: Well, is not that a minor issue in this?
>
> "Mr. Roeming: Yes, I agree that is. The main issue is whether there is invention."

Again on page 23 of the Joint Appendix:

> "Mr. Roeming: Shall I have a discussion of those two issues of prolixity, and old combination at this point or shall I let that go to final argument?
>
> "The Court: Well, you may make that in final argument."

At the trial the testimony pointed to many problems existing with regard to the construction and use of clamps for outboard motors that did not exist in other clamp fields or in the handle art, and which were solved by the present invention.

At final argument counsel for Appellant referred to these and pointed out that the claims were quite properly couched in language limiting the invention to the field of outboard motors and expressing the same as a combination of the elements essential to the solving of the problems (J.A. 44).

Counsel for Appellee (J.A. 46) stated "On the second issue discussed in opening argument, old combination, I will not argue that further, since on the facts in this case the question of invention and old combination necessarily stand together." (underlining supplied).

The opinion of the Court (J.A. 83) does not refer to the issue.

The issue of old combination and of invention having been gratuitously merged by counsel for appellee (supra), it is not believed to have been proper for such counsel to request a separate finding (No. 17) and to rely upon it here.

As pointed out in the brief for Appellant, p. 9, there is a coaction between the elements of the claim that clearly removes any issue of exhausted combination.

THE DISTRICT COURT CONFLICT ON PROLIXITY

This subject is treated in Appellee's brief on pages 24-26, where it appears that counsel has completely shifted to an argument of "new matter" based solely upon the phrase which was added by amendment to the end of each claim, i.e. that the structure is "susceptible to damage by the use of other means for tightening the clamps whereby over-tightening of the clamps is generally discouraged and is evidenced by damage to the covering in the event of clamp failure due to such over-tightening."

Just how this phrase, which according to Appellee's counsel relates only to an advantage and not to structure can constitute new matter, is not understood. The phrase would seem to be substantially inherent in the structure expressed earlier in the claim, and it cannot be considered as new matter.

Furthermore, the phrase relates to a characteristic of the structure specified, the same as would be proper in an alloy case with respect to the characteristic of hardness, or in a structural case with regard to the characteristic of rigidity or of flexibility. Such characteristics are proper and do not add prolixity to the claims.

In regard to the issue of prolixity, at the opening statement of counsel for Appellant the following colloquy occurred (J.A. 10-11):

> "Mr. Andrus: To my way of thinking, this particular controversy is truly negligible in this case.
>
> "The Court: Yes, I should think so.
>
> "Mr. Andrus: ... To me, it is no reason for striking down a meritorious invention, regardless, as long as all the elements are there and it is clearly stated."

During the opening statement of counsel for Appellee the District Court asked counsel concerning the issue of prolixity (J.A. 15):

> "The Court: Well, now, if they were limited just to the structural limitations, would the rejection still stand?
>
> "Mr. Roeming: Yes, Your Honor."

Thereafter counsel for Appellee ceased all further argument of the point and asked the Court if he could let it go to final argument (J.A. 23). At final argument, counsel for Appellee stated on this issue (J.A. 46-47):

> "As to the question of prolixity, which is raised in another rejection affirmed by the Patent Office, I will make no argument other than to submit for Your Honor's consideration a decision, Ex Parte Duncan, which was affirmed by the Appellate Court of the District of Columbia in 1920, as shown herewith."

In Ex Parte Duncan, the appellant was permitted to amend his claim to avoid the objectionable prolixity after the decision, and to thereupon obtain a patent.

The District Court did not refer to the issue of prolixity in its Opinion (J.A. 83). It is submitted that the Court induced counsel to try the case on the issue of invention and proceeded to decide the case only on that issue. It is believed that finding No. 16 on the point of prolixity was improper under these circumstances.

THERE IS REVERSIBLE ERROR

There is no reference showing a structure composed of the elements specified in the present claims, and which has the coaction of the elements in the combination as called for. This very coaction is quite properly set forth in each of the claims as originally filed, and removes any contention of lack of invention, of exhausted combination, and of prolixity. The District Court has entirely overlooked the inherent coaction of the elements as recited in the claims. Reversible error is therefor present.

Respectfully submitted,
ELWIN A. ANDRUS
Milwaukee, Wisconsin

Attorney for Appellant.

Of Counsel:

Kemon and Palmer
Solon B. Kemon

1331 G Street, N.W.
Washington 5, D.C.